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COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF FORESTS AND WATERS

Water Resources Service

STREAM FLOW RECORDS

For the Water Year

OCTOBER 1, 1924, TO SEPTEMBER 30, 1925

PA STATE COLLEGE

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CONTENTS

Page

STREAM GAGING, FLOOD WARNING AND PRECIPITATION

Stream Gaging 9
Flood Warning 13
Precipitation 13

STREAM FLOW RECORDS

Definition of Terms 22
Convenient Equivalents 23
Explanation of Data 24
Accuracy of Field Data and Computed Records 25
Gaging Station Records 29
Index 219

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TABLES

No.		Page
	STREAM GAGING	
I	Lowest discharge during the year and minimum discharge recorded	10
II	Highest stages reached during the year and maximum stages recorded	11
	FLOOD WARNING	
III	Predicted and Actual Stages reached September 30-October 1, 1924	14
IV	Predicted and Actual Stages reached February 12-13, 1925	15
	PRECIPITATION	
V	Precipitation Stations in Pennsylvania	17
	STREAM FLOW RECORDS	
VI	Gaging Stations in Delaware Basin	26
VII	Gaging Stations in Susquehanna Basin	27
VIII	Gaging Stations in Ohio Basin	27
IX	Miscellaneous Discharge Measurements,	214
X	Summary of Run-off in Second-feet per Square Mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, Delaware Basin	216
XI	Summary of Run-off in Second-feet per Square Mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, Susquehanna Basin	217
XII	Summary of Run-off in Second-feet per Square Mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, Ohio Basin	218

ILLUSTRATIONS

No.		Page
	PRECIPITATION	
I	Map showing Precipitation	21
	STREAM FLOW RECORDS	
II	Map showing location of Gaging Stations	28

STREAM FLOW RECORDS

OF

PENNSYLVANIA

FOR THE

WATER YEAR OCTOBER 1, 1924, TO SEPTEMBER 30, 1925

STREAM GAGING, FLOOD WARNING AND PRECIPITATION

This volume, containing records for the year ending September 30, 1925, is the fourth of a series of publications presenting stream flow records of Pennsylvania to be issued under separate cover. All previous records may be found in the Stream Flow Records of Pennsylvania for the years 1922-1924, and the Annual Reports of the Water Supply Commission of Pennsylvania for the period 1910-1921.

STREAM GAGING

At the beginning of the year seventy-four stream gaging stations were being operated by the State. A new station was established on the East Branch Clarion River at Instanter on November 17, 1924, one near York on the South Branch Codorus Creek on May 21, 1925, and one on Loyalsock Creek at Loyalsock on July 27, 1925. The station on the West Branch Susquehanna River at Lock Haven was reestablished on August 14, 1925, and the one on French Creek at Carlton was discontinued on March 31, 1925.

This volume contains stream flow records for eighty-three gaging stations. Descriptions of stations, daily mean gage heights and current meter discharge measurements are published for all stations. Tables of daily and monthly discharge are given for those stations having a satisfactory rating.

The precipitation for the State was below normal for ten months of the year. There was a total deficiency of 10.2 inches, being equivalent to 24 per cent of the yearly mean amount.

The yearly mean flows for the primary streams in the State were from 10 to 52 per cent below the means for the water years 1910 to 1925 inclusive. As a whole, the yearly mean discharge for the primary streams in the State was 24 per cent below the mean for the 16 years ending September 30, 1925.

The yearly mean discharges of the West Branch Susquehanna River at Williamsport, Juniata River at Newport, Allegheny River at Kittanning and Youghiogheny River at Connellsville were from 3 to 35 per cent below the means of 1923, when the minima for the period 1910-1924 occurred.

The low flows for the year occurred in several different months with September predominating. Excepting the Juniata River at Newport, where the flow was lower than any previously recorded, the low flows for the year were well above the minimum discharges on record.

The following table shows the lowest discharge reached during the year and the minimum discharge recorded:

TABLE NO. I

Lowest discharge during the year ending September 30, 1925, and minimum discharge recorded.

Location	Stream	Lowest discharge during the year		Minimum discharge recorded	
Bethlehem	Lehigh River	425	January*	160	October 1910
Riegelsville	Delaware River	1,530	November*	870	September 1908*
Reading	Schuylkill River	290	June*	115	August 1923*
Wilkes-Barre	North Branch Susquehanna River	1,740	September	820	September 1913
Williamsport	West Branch Susquehanna River	668	September	382	September 1913
Newport	Juniata River	200	August	260	August 1925
Harrisburg	Susquehanna River	3,540	September	2,330	September 1900
Kittanning	Allegheny River	1,200	September	570	September 1913
Avonmore	Kiskiminitas River	330	September	60	September 1908
Connelisville	Youghiogheny River	75	November	11	September 1908 October 1910

*Not including flow in the canal.

The severe rain storm on the last two days of September, 1924, increased many of the stream flows to high stages but with few exceptions the crest heights were not reached until after the beginning of the 1925 water year. With the exception of the Lehigh and Schuylkill Rivers and the lower reaches of the Delaware River, none of the primary streams of the State reached maximum stages for the year at that time.

October was by far the driest month that had occurred in the 37 years of the State Weather Service. The average rainfall for the month was less than two-tenths of an inch, or more than three inches below the October mean. The streams did not recede to unusual stages owing to the additional ground water supply furnished by the heavy rains during the latter part of September.

The drought extended into November and conditions were not relieved until the close of the second week when rains occurred over the whole State. Following the driest month on record there was a deficiency of over one inch in rainfall during November. It was at that time the Delaware and Youghiogheny Rivers receded to their lowest flows for the year. Abnormally low temperature prevailed

for a short period following the middle of the month and many of the stage-discharge relations were affected by the ice for a few days.

As a whole it was the driest December in 25 years excepting that of 1917. The precipitation was more than an inch below normal and the streams remained at low stages during the first half of the month. Low temperatures prevailed during the last few days in the month and in general the streams became ice bound and remained closed until the early part of February.

The temperature in January remained below normal during practically the entire month. Although the precipitation averaged slightly above normal, the average snowfall for the State was the greatest in recent years, being nearly three times the normal for the month, and about three times the sum of that which fell in all other months during the winter.

For the State as a whole it was the warmest February in 16 years and in the southeastern counties the warmest on record. The unusually heavy snowfall in January left a deep blanket over the State which melted rapidly with a marked increase in temperature after the 5th of the month. The melting snow was supplimented by a moderately heavy rain on the 11th and the streams rose to flood stages in some parts of the State. The rapidly rising water broke and floated the ice off the streams without gorges being formed and in general eliminated the effects of ice on stream flow for the remainder of the year. It was during these high flows that the maximum stages for the year occurred on nearly all of the streams in the State, though they were well below those previously observed.

The following table shows the highest stages reached during the year and the maximum stages recorded:

TABLE NO. II

Highest stages reached during the year ending September 30, 1925, and maximum stages recorded.

Location	Stream	Highest stage during the year		Maximum stage recorded	
Bethlehem	Lehigh River	16.2	October	25.9	February 1902
Riegelsville	Delaware River	24.2	October	35.9	October 1903
Reading	Schuylkill River	16.5	October	23.0	September 1850
Wilkes-Barre	North Branch Susquehanna River	25.1	February	33.1	March 1865
Williamsport	West Branch Susquehanna River	19.5	February	33.5	June 1889
Newport	Juniata River	16.0	February	35.9	June 1889
Harrisburg	Susquehanna River	18.8	February	26.8	June 1889
Kittanning	Allegheny River	20.0	February	30.4	March 1913
Avonmore	Kiskiminitas River	17.8	February	33.8	March 1907
Lock No. 4	Monongahela River	26.2	May*	45.2	July 1888*
Connellsville	Youghiogheny River	9.7	May	20.5	March 1924

*United States Weather Bureau record.

The temperature for March was above normal and the precipitation was nearly an inch below the monthly mean. There were no

great fluctuations in flow during March as the usual high stages, caused primarily by the melting of accumulated snow, were not experienced due to the unusual climatic conditions in February.

The mean temperature for April, 1925, had been equaled or exceeded only four times in that month during 38 years. The precipitation for the month was about one inch below normal as had been the case in the two preceding months. In general the streams receded slowly until the latter half of the month when there were some comparatively small increases in flow.

With three exceptions it was the coldest May in 38 years. The average rainfall for the State was slightly below normal but of rather uneven distribution. The streams in the Delaware Basin were not materially affected by the storms. In the Susquehanna Basin there were marked increases in flow, on the 11th of the month in the West Branch Susquehanna and Juniata Rivers. In the Ohio Basin the Allegheny and Beaver Rivers changed slightly during the month, while the Kiskiminitas, Youghiogheny and Monongahela Rivers reached high stages, the latter two being at maximum heights for the year.

In general it was the warmest June in 38 years and in the extreme southeastern part of the State, it was the warmest June during the last century by a considerable margin. It was the fifth consecutive month that the rainfall had been below normal and the streams gradually receded until the latter part of the month when there were slight increases in discharge.

In marked contrast to the preceding months, the predominant feature of the weather in July was the almost general excess in rainfall in all sections of the State. Notwithstanding the precipitation for the month was only 1.6 inches above normal and deficiencies totalling 4.1 inches had occurred in the five preceding months, there was a general increase in the stream flows during July. The Schuylkill, West Branch Susquehanna, Kiskiminitas and Youghiogheny Rivers were the ones most affected by the storms though no unusual stages were reached.

The rainfall for August was only half the monthly normal, but fair stream flows were maintained until the latter part of the month, due in part to the additional ground water supply furnished by the unusual rains in July.

Contrasting sharply with September, 1924, which was the wettest since the records of the Weather Bureau began in 1888, September, 1925, averaged slightly more than half its normal rainfall. In September nearly all of the streams in the State receded to their lowest discharges for the year following the 50 per cent deficiency in precipitation during August.

The yearly mean discharges in the three principal basins of the State have been compared with the mean discharges for the 16 years ending September 30, 1925, and with the minimum and maximum yearly mean discharges for the period.

In the Delaware Basin, as represented by the Delaware River at Riegelsville, the yearly mean discharge was 10 per cent less than the mean for the 16 years; 42 per cent more than that of 1915, the minimum year for the period, and 26 per cent below the 1920 mean, which was the maximum during the record. At Bethlehem on the Lehigh River, the mean was 12 per cent less than that for the 16 years; 29 per cent above the minimum which occured in 1923, and 26 per cent below the maximum in 1922.

The yearly mean discharge in the Susquehanna Basin, as represented by the North Branch Susquehanna River at Danville, was 12 per cent less than the mean for the 16 years; 27 per cent more than the minimum in 1923, and 36 per cent less than the maximum in 1916. At Williamsport on the West Branch Susquehanna River, the mean discharge for the year was 35 per cent less than the mean for the 16 years; 9 per cent less than that in 1923, which was the previous minimum for the record, and 51 per cent below the two high means for the period in 1912 and 1916. The mean discharge for the Juniata River at Newport was 39 per cent less than the mean for the 16 years; 10 per cent less than the previous minimum in 1923, and 58 per cent less than the maximum in 1924. At Harrisburg on the Susquehanna River the mean discharge was 26 per cent less than the mean for 16 years; 12 per cent more than the minimum of 1923, and 46 per cent less than the maximum in 1916.

In the Ohio Basin, as represented by the Allegheny River at Kittanning, the mean discharge for the year was 28 per cent less than the mean for 16 years; 3 per cent less than the previous minimum which occurred in 1923, and 46 per cent less than for 1912, which was the maximum during the period. At Connellsville on the Youghiogheny River, the yearly mean was 52 per cent less than that for the 16 years (not including 1919, when the record was not complete): 35 per cent less than in 1923, which was the previous minimum for the period, and 69 per cent below the maximum in 1912.

FLOOD WARNING

In striking contrast with the records for 1924, the year was marked by exceptionally few high river stages. None of the previous high water records were exceeded or even approached.

An unusual rainfall on the 29th and 30th of September, 1924, which may have averaged about 4.5 inches on the Delaware Basin, nearly 4 inches on the Susquehanna Basin and approximately 3 inches on the Ohio Basin, increased many of the stream flows to flood heights. However, with but few exceptions, the crest stages were not reached until after the beginning of the 1925 water year.

In the Delaware Basin, the Lehigh and Schuylkill Rivers and the lower reaches of the Delaware River were at their highest stages during the year on the 1st of October. The Delaware River rose 21.8 feet at Riegelsville to gage height 24.2 feet; the Lehigh River increased 14.6 feet at Bethlehem to a stage of 16.2 feet and the Schuylkill River at Reading, where there was a negative gage height, rose 16.8 feet to gage height 16.5 feet.

In the Susquehanna Basin the rain was heaviest over the North Branch and main Susquehanna. The increased flows in the West Branch and Juniata were not unusual. The North Branch Susquehanna River rose about 20 feet at Wilkes-Barre; the West Branch 9 feet at Williamsport; the Juniata River 6 feet at Newport and the Susquehanna River increased about 11 feet at Harrisburg.

The following table shows the predicted stages and those which actually occurred:

TABLE NO. III

Predicted and Actual Stages, in feet, reached September 30—October 1, 1924.

Location	Stream	Predicted Stage	Actual Stage
Binghamton	North Branch Susquehanna River	16.0	17.0
Corning	Chemung River	12.0	13.0
Towanda	North Branch Susquehanna River	15.0	16.8
Wilkes-Barre	North Branch Susquehanna River	22.0	22.1
Danville	North Branch Susquehanna River	18.0	18.2
Bower	West Branch Susquehanna River	10.0	9.0
Renovo	West Branch Susquehanna River	8.0	6.1
Williamsport	West Branch Susquehanna River	12.0	10.0
Sunbury	Susquehanna River	13.0	12.8
Newport	Juniata River	12.0	9.5
Harrisburg	Susquehanna River	15.0	14.5

In the Ohio Basin the rainfall was heaviest over the Allegheny drainage while the Shenango and Youghiogheny contributing areas were the least affective. The Allegheny River rose 13.4 feet at Kittanning to gage height 16.8 feet; the Monongahela increased 13.0 feet at South Brownsville to a stage of 25.3 feet, and the Kiskiminitas River rose 8.8 feet at Avonmore to gage height 12.3 feet. The Shenango River rose 6.4 feet at Sharon and the Youghiogheny increased 4.6 feet at Connellsville to gage heights 9.4 and 5.6 feet respectively.

The abnormally low temperature and unusual snowfall in January left the ground covered with a large amount of accumulated snow at the biginning of February. The January snowfall was about three times the normal amount for the month and averaged about 30 inches for the State. Its uneven distribution was well exemplified by the monthly total of over 56 inches at one station and a daily record of nearly 26 inches at another.

After the 5th of February the snow was melted rapidly by a marked increase in temperature. On the 10th and 11th of the month the melting snow was supplemented by rains of moderate intensity and many of the stream flows were increased to flood stages.

The rainfall was general and fairly uniform over the State, averaging from slightly above an inch on the Delaware Basin to a small amount below on the Ohio Drainage.

In the eastern part of the State, the Delaware River rose about 17 feet at Riegelsville, the Lehigh River increased 11.0 feet at Bethlehem to gage height 13.0 feet and the Schuylkill River rose 13.8 feet at Reading to a stage of 14.8 feet.

In the Susquehanna Basin the North Branch Susquehanna River rose about 23 feet at Wilkes-Barre; the West Branch increased about 17 feet at Williamsport, the Juniata River rose 12 feet at Newport and the Susquehanna increased 14 feet at Harrisburg.

The following table shows the predicted stages and those which actually occurred:

TABLE NO. IV

Predicted and Actual Stages, in feet, reached February 12-13, 1925.

Location	Stream	Predicted Stage	Actual Stage
Binghamton	North Branch Susquehanna River	18.0	17.3
Corning	Chemung River	15.0	14.5
Towanda	North Branch Susquehanna River	20.0	18.7
Wilkes-Barre	North Branch Susquehanna River	28.0	25.1
Danville	North Branch Susquehanna River	23.0	20.3
Bower	West Branch Susquehanna River	11.0	10.5
Clearfield	West Branch Susquehanna River	8.0	7.5
Renovo	West Branch Susquehanna River	15.0	14.5
Lock Haven	West Branch Susquehanna River	20.0	No record
Jersey Shore	West Branch Susquehanna River	23.0	no record
Williamsport	West Branch Susquehanna River	20.0	19.5
Lewisburg	West Branch Susquehanna River	18.0	17.7
Sunbury	Susquehanna River	17.0	17.2
Tyrone	Little Juniata River	8.0	7.0
Williamsburg	Frankstown Branch Juniata River	13.0	12.4
Huntingdon	Frankstown Branch Juniata River	13.0	12.0
Saxton	Raystown Branch Juniata River	12.0	11.3
Newport	Juniata River	20.0	16.0
Harrisburg	Susquehanna River	19.5	18.8

At the time the predictions were being made there was a general breaking of heavy ice which had been intact since the latter part of December and the flood flows were heavily ladened with floating ice which materially affected the gage heights at some localities.

In the Ohio Basin the Allegheny River rose 10 feet at Kittanning to gage height 19.9 feet; the Kiskiminitas increased 10 feet at Avonmore to a stage of 17.8 feet; the Monongahela rose 8.3 feet at South Brownsville to 22.6 feet; the Youghiogheny increased 5.7 feet at Connellsville to 8.2 feet and the Shenango River rose 8.0 feet at Sharon to gage height 11.3 feet.

The Ohio River at Pittsburgh rose from a gage height of 10.8 feet to 21.9 feet, which was the highest stage during the year and one-tenth of a foot below flood stage, while during the preceding year flood stage was exceeded three times in four months by amounts ranging from 2.6 to 7.2 feet.

It was during the high flows in February that nearly all of the streams in the State were relieved of their ice bound condition and reached their maximum stages during the year.

There were heavy showers in many parts of the State on the 10th and 11th of May. Rainfalls of 1.5 to 2.0 inches were common, but the streams in the southwestern counties were the only ones materially affected by the storms.

The Kiskiminitas River rose 9.5 feet at Avonmore to gage height 14.5 feet; the Monongahela increased 12.9 feet at South Brownsville to a stage of 25.5 feet and the Youghiogheny River rose 7.7 feet at Connellsville to gage height 9.7 feet.

It was following the heavy showers on the 10th and 11th of May that the streams in the southwestern part of the State reached their highest stages during the year.

PRECIPITATION

Thirty-seven rainfall stations were maintained by the Department of Forests and Waters during the year. The United States Weather Bureau maintains a larger number of stations and publishes its records monthly and annually. As it is more convenient for parties using precipitation records to find them all under one cover, a cooperative arrangement was made with the United States Weather Bureau in 1920 whereby the Department of Forests and Waters furnished its records to the Weather Bureau for publication in its monthly and annual Climatological Data.

Prior to 1920 the Water Supply Commission of Pennsylvania published precipitation records in its annual reports; for subsequent years they have been published by the United States Weather Bureau.

The following table shows the precipitation stations in Pennsylvania, used in preparing the precipitation map shown on page 21. The table comprises the stations of the United States Weather Bureau, the Department of Forests and Waters and those of private interests.

TABLE NO. V

PRECIPITATION STATIONS IN PENNSYLVANNIA
ATLANTIC DRAINAGE

STATION	COUNTY	DRAINAGE BASIN
Allentown	Lehigh	Lehigh
Altoona	Blair	Juniata
Ansonia	Tioga	West Branch Susquehanna
Bakers Summit	Bedford	Juniata
Bear Gap	Northumberland	Susquehanna
Bethlehem	Northampton	Lehigh
Biglerville	Adams	Susquehanna
Bloserville	Cumberland	Susquehanna
Bustleton	Philadephia	Delaware
Campbell's Ledge	Lackawanna	North Branch Susquehanna
Carlisle	Cumberland	Susquehanna
Catawissa	Columbia	North Branch Susquehanna
Cedar Run	Lycoming	West Branch Susquehanna
Centre Hall	Centre	Susquehanna
Chambersburg	Franklin	Potomac
Clearfield	Clearfield	West Branch Susquehanna
Coatesville	Chester	Delaware
Colebrook	Lebanon	Susquehanna
Conshohocken	Montgomery	Schuylkill
Cresson	Cambria	Juniata
Doylestown	Bucks	Delaware
Driftwood	Cameron	West Branch Susquehanna
Emporium	Cameron	West Branch Susquehanna
Ephrata	Lancaster	Susquehanna
Forest City	Susquehanna	North Branch Susquehanna
Freeland	Luzerne	Lehigh
George School	Bucks	Delaware
Gettysburg	Adams	Potomac
Girardville	Schuylkill	Susquehanna
Gordon	Schuylkill	Susquehanna
Gouldsboro	Wayne	Lehigh
Graters Ford	Montgomery	Schuylkill
Hamburg	Berks	Schuylkill
Hanover	York	Susquehanna
Harrisburg	Dauphin	Susquehanna
Harrisburg, East	Dauphin	Susquehanna
Harrisburg, North	Dauphin	Susquehanna
Hawley	Wayne	Delaware
Holtwood	Lancaster	Susquehanna
Huntingdon	Huntingdon	Juniata
Huntsville Intake	Luzerne	North Branch Susquehanna
Hyndman	Bedford	Potomac
Jersey Shore	Lycoming	West Branch Susquehanna
Kennett Square	Chester	Delaware
Lancaster	Lancaster	Susquehanna
Lansford	Carbon	Lehigh
Lawrenceville	Tioga	North Branch Susquehanna
Lebanon	Lebanon	Susquehanna
Leolyn	Tioga	West Branch Susquehanna
Lewisburg	Union	West Branch Susquehanna

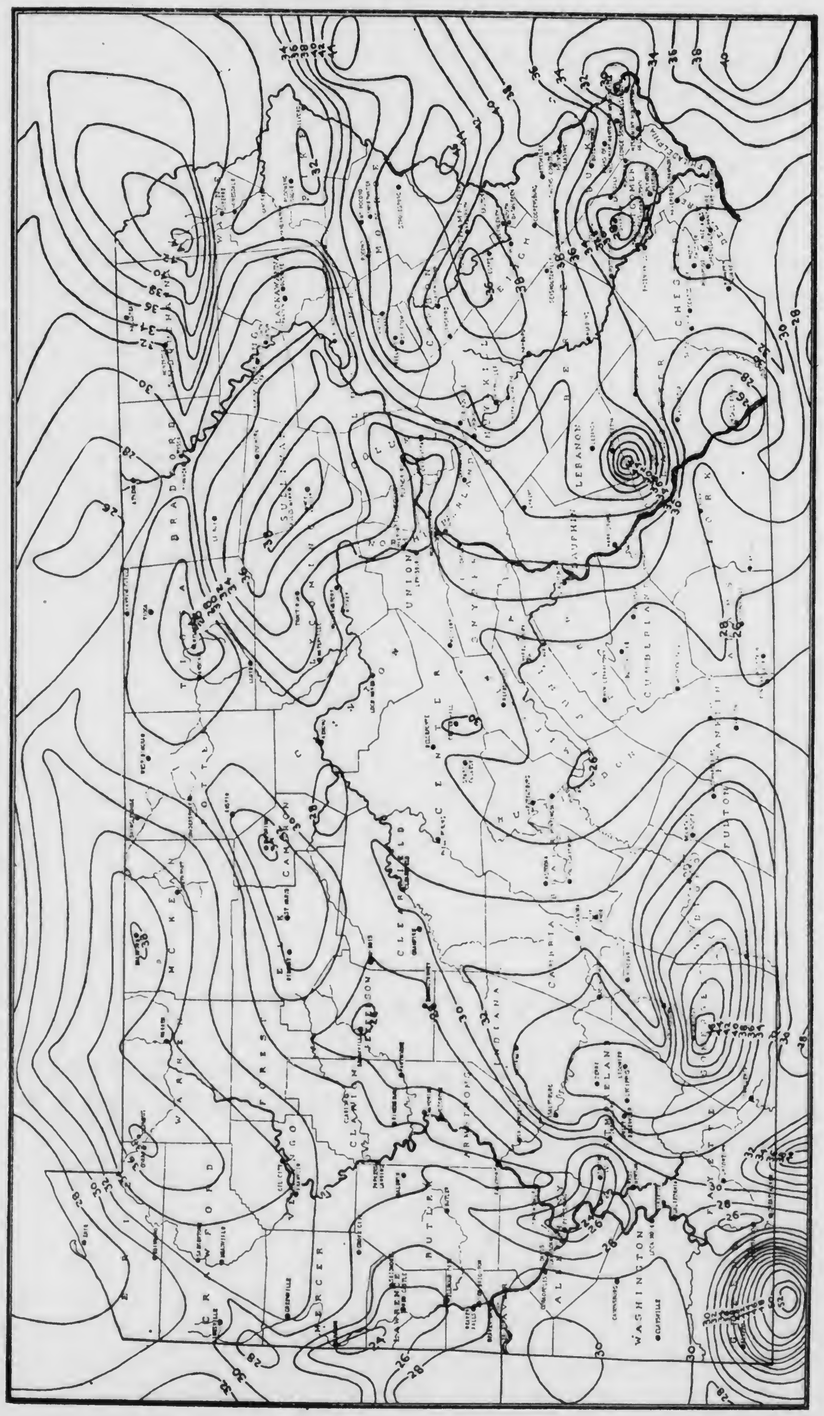
STATION	COUNTY	DRAINAGE BASIN
Lloyd	Tioga	West Branch Susquehanna
Lock Haven	Clinton	West Branch Susquehanna
Lykens	Dauphin	Susquehanna
Mauch Chunk	Carbon	Lehigh
Mifflintown	Juniata	Juniata
Montrose	Susquehanna	North Branch Susquehanna
Mount Carmel	Northumberland	North Branch Susquehanna
Mount Pocono	Monroe	Delaware
Mount Union	Huntingdon	Juniata
Muncy Valley	Sullivan	West Branch Susquehanna
Narberth	Montgomery	Delaware
Neshaminy	Bucks	Delaware
New Park	York	Susquehanna
Palmerton	Carbon	Lehigh
Paupack	Pike	Delaware
Philadelphia (a)	Philadelphia	Delaware
Philadelphia Navy Yard	Philadelphia	Delaware
Philadelphia Point Breeze	Philadelphia	Delaware
Philadelphia Germantown	Philadelphia	Delaware
Phoenixville	Chester	Schuylkill
Pike's Creek Corners	Luzerne	North Branch Susquehanna
Pike's Creek Intake	Luzerne	North Branch Susquehanna
Pine Grove	Schuylkill	Susquehanna
Pleasant Mount	Wayne	Delaware
Plymouth Reservoir	Luzerne	North Branch Susquehanna
Pottstown	Schuylkill	Schuylkill
Pottsville	Schuylkill	Schuylkill
Promised Land	Pike	Delaware
Quakertown	Bucks	Delaware
Reading	Berks	Schuylkill
Renovo	Clinton	West Branch Susquehanna
Salem	Wayne	Delaware
Scranton	Lackawanna	North Branch Susquehanna
Selinsgrove	Snyder	Susquehanna
Shamokin	Northumberland	Susquehanna
Shawmont	Philadelphia	Schuylkill
Snow Hill	Monroe	Delaware
South Sterling	Pike	Delaware
Spring Brook Intake	Lackawanna	North Branch Susquehanna
State College	Centre	West Branch Susquehanna
Sunbury	Northumberland	Susquehanna
Towanda	Bradford	North Branch Susquehanna
Watres Reservoir	Lackawanna	North Branch Susquehanna
Weikert	Union	Susquehanna
Wellsboro	Tioga	West Branch Susquehanna
West Chester	Chester	Delaware
White Haven	Luzerne	Lehigh
Wilkes-Barre	Luzerne	North Branch Susquehanna
Wilkes-Barre. S. B. W. C.	Luzerne	North Branch Susquehanna
Williamsport	Lycoming	West Branch Susquehanna
Wilsonville	Wayne	Delaware
York	York	Susquehanna
York Haven	York	Susquehanna

OHIO DRAINAGE

STATION	COUNTY	DRAINAGE BASIN
Beaver Dam	Beaver	Ohio
Beaver Falls	Beaver	Beaver
Boydstown Reservoir	Butler	Allegheny
Bradford	McKean	Allegheny
Bradys Bend	Armstrong	Allegheny
Brookville	Jefferson	Allegheny
Clarion	Clarion	Allegheny
Claysville	Washington	Ohio
Cloe	Jefferson	Allegheny
Clymer	Indiana	Kiskiminitas
Confluence	Somerset	Youghiogheny
Coraopolis	Allegheny	Ohio
Corry	Erie	Allegheny
Coudersport	Potter	Allegheny
Creekside	Indiana	Allegheny
Dalton Run	Somerset	Kiskiminitas
Derry	Westmoreland	Kiskiminitas
Ebensburg	Cambria	Kiskiminitas
Elk Lick	Somerset	Youghiogheny
Falls Creek	Clearfield	Allegheny
Franklin	Venango	Allegheny
Freeport	Armstrong	Allegheny
Greensburg	Westmoreland	Youghiogheny
Greenville	Mercer	Beaver
Grove City	Mercer	Beaver
Herrs Island Dam	Alleghney	Allegheny
Hinkston Run	Cambria	Kiskiminitas
Indiana	Indiana	Kiskiminitas
Ingram	Alleghney	Ohio
Irwin	Westmoreland	Youghiogheny
Johnstown	Cambria	Kiskiminitas
Ketner	Elk	Allegheny
Kregar	Westmoreland	Youghiogheny
Laurel Run	Cambria	Kiskiminitas
Linesville	Crawford	Beaver
Lock No. 4	Washington	Monongahela
Lycippus	Westmoreland	Kiskiminitas
Martin	Fayette	Monongahela
Mill Creek	Cambria	Kiskiminitas
New Castle	Lawrence	Beaver
Newell	Fayette	Monongahela
North Fork	Somerset	Kiskiminitas
Parkers Landing	Armstrong	Allegheny
Pennline	Crawford	Beaver
Pittsburgh	Allegheny	Ohio
Quemahoning	Somerset	Kiskiminitas
Ridgway	Elk	Allegheny
Saegertown	Crawford	Allegheny
Saltlick	Cambria	Kiskiminitas
Saltsburg	Indiana	Kiskiminitas
Sharon	Mercer	Beaver

STATION	COUNTY	DRAINAGE BASIN
Somerset	Somerset	Youghiogheny
Springdale	Allegheny	Allegheny
Uniontown	Fayette	Monongahela
Unity Reservoir	Westmoreland	Youghiogheny
Vandergrift	Westmoreland	Kiskiminitas
Warren	Warren	Allegheny
Washington	Washington	Ohio
Waynesburg	Greene	Monongahela
Westford	Crawford	Beaver
West Newton	Westmoreland	Youghiogheny
Zelienople	Butler	Beaver
LAKE DRAINAGE		
Erie	Erie	Lake Erie
West Bingham	Potter	Genesee

DEPARTMENT OF FORESTS AND WATERS
WATER RESOURCES SERVICE
Map Showing Precipitation for the year ending September 30, 1925.


WARREN
FOREST
VENANGO
CRAWFORD
MERCER
BUTLER
CLEARFIELD
CAMBRIA
INDIANA
WESTMORELAND
WASHINGTON
FAYETTE
SOMERSET
BEDFORD
BLAIR
HUNTINGDON
CENTRE
MIFFLIN
JUNIATA
PERRY
CUMBERLAND
YORK
ADAMS
FRANKLIN
FULTON
LEBANON
DAUPHIN
SCHUYLKILL
BERKS
LEHIGH
NORTHAMPTON
CARBON
MONROE
PIKE
WAYNE
SUSQUEHANNA
WYOMING
LUZERNE
COLUMBIA
MONTOUR
NORTHUMBERLAND
SNYDER
UNION
LYCOMING
CLINTON
POTTER
TIOGA
MCKEAN
ELK
CAMERON
CLARION
JEFFERSON
ARMSTRONG
INDIANA
BEAVER
LAWRENCE
GREENE
ALLEGHENY

STREAM FLOW RECORDS

DEFINITION OF TERMS

The volume of water flowing in a stream—the "run-off" or "discharge"—is expressed in various terms, each of which has become associated with a certain class of work. These terms may be divided into two groups—(1) those that represent a rate of flow, as second-feet, gallons per minute, and discharge in second-feet per square mile, and (2) those that represent the actual quantity of water, as run-off in depth of inches, and millions of cubic feet. The principal terms used in this series of reports are second-feet, second-feet per square mile, and run-off in inches. They may be defined as follows:

"Second-feet" is an abbreviation for "cubic feet per second." A second-foot is the rate of discharge of water flowing in a channel of rectangular cross section 1 foot wide and 1 foot deep at an average velocity of 1 foot per second. It is generally used as a fundamental unit from which others are computed by the use of the factors given in the tables of convenient equivalents, page .

"Second-feet per square mile" is the average number of cubic feet of water flowing per second from each square mile of area drained, on the assumption that the run-off is distributed uniformly both as regards time and area.

"Run-off (depth in inches)" is the depth to which an area would be covered if all the water flowing from it in a given period were uniformly distributed on the surface. It is used for comparing run-off with rainfall, which is usually expressed in depth in inches.

The following terms not in common use are here defined:

"Stage-discharge relation," an abbreviation for the term "relation of gage height to discharge."

"Control," a term used to designate the section or sections of the stream below the gage which determine the stage-discharge relation at the gage. It should be noted that the control may not be the same at all stages.

The "point of zero flow" for a gaging station is that point on the gage—the gage height—to which the surface of the river falls when the discharge is reduced to zero.

CONVENIENT EQUIVALENTS

The following is a list of convenient equivalents for use in hydraulic computations:

Table for converting discharge in second-feet per square mile into run-off to depth in inches over the area.

Discharge (second-feet per square mile)	Run-of (depth in inches)				
	1 day	28 days	29 days	30 days	31 days
1	0.03719	1.041	1.079	1.116	1.153
2	.07438	2.083	2.157	2.231	2.306
3	.11157	3.124	3.236	3.347	3.459
4	.14876	4.165	4.314	4.463	4.612
5	.18595	5.207	5.393	5.578	5.764
6	.22314	6.248	6.471	6.694	6.917
7	.26033	7.289	7.550	7.810	8.070
8	.29752	8.331	8.628	8.926	9.223
9	.33471	9.372	9.707	10.041	10.376

Note—For part of a month multiply the run-off for 1 day by the number of days.

Table for converting discharge in second-feet into run-off in millions of cubic feet.

Discharge (second-feet)	Run-off (millions of cubic feet)				
	1 day	28 days	29 days	30 days	31 days
1	0.0864	2.419	2.506	2.592	2.678
2	.1728	4.838	5.012	5.184	5.356
3	.2592	7.257	7.518	7.776	8.034
4	.3456	9.676	10.02	10.37	10.71
5	.4320	12.10	12.53	12.96	13.39
6	.5184	14.51	15.04	15.55	16.07
7	.6048	16.93	17.54	18.14	18.75
8	.6912	19.35	20.05	20.74	21.42
9	.7776	21.77	22.55	23.32	24.10

Note—For part of a month multiply the run-off for 1 day by the number of days.

Table for converting discharge in second-feet into run-off in millions of gallons.

Discharge (second-feet)	Run-off (millions of gallons)				
	1 day	28 days	29 days	30 days	31 days
1	0.6463	18.10	18.74	19.39	20.04
2	1.293	36.20	37.48	38.78	40.08
3	1.939	54.30	56.22	58.17	60.12
4	2.585	72.40	74.96	77.56	80.16
5	3.232	90.50	93.70	96.95	100.2
6	3.878	108.6	112.4	116.3	120.2
7	4.524	126.7	131.2	135.7	140.3
8	5.170	144.8	149.9	155.1	160.3
9	5.817	162.9	168.7	174.5	180.4

Note—For part of a month multiply the run-off for 1 day by the number of days.

Table for converting velocity in feet per second into velocity in miles per hour (1 foot per second = 0.681818 mile per hour, or very nearly two-thirds mile per hour; 1 mile per hour = 1.46666 feet per second. In computing the table the values 0.68182 and 1.4667 were used)

Feet per second (units)	Miles per hour for tenths of foot per second									
	0	1	2	3	4	5	6	7	8	9
0	0.000	0.068	0.136	0.205	0.273	0.341	0.409	0.477	0.545	0.614
1	.682	.750	.818	.886	.995	1.02	1.09	1.16	1.23	1.30
2	1.36	1.43	1.50	1.57	1.64	1.70	1.77	1.84	1.91	1.98
3	2.05	2.11	2.18	2.25	2.32	2.39	2.45	2.52	2.59	2.66
4	2.73	2.80	2.86	2.93	3.00	3.07	3.14	3.20	3.27	3.34
5	3.41	3.48	3.55	3.61	3.68	3.75	3.82	3.89	3.95	4.02
6	4.09	4.16	4.23	4.30	4.36	4.43	4.50	4.57	4.64	4.70
7	4.77	4.84	4.91	4.98	5.05	5.11	5.18	5.25	5.32	5.39
8	5.45	5.52	5.59	5.66	5.73	5.80	5.86	5.93	6.00	6.07
9	6.14	6.20	6.27	6.34	6.41	6.48	6.55	6.61	6.68	6.75

1 Second-foot equals 7.48 United States gallons per second; equals 448.8 gallons per minute; equals 646,317 gallons for one day.
1 Second-foot for one year (365 days) covers 1 square mile 1.1312 feet or 13.5744 inches deep.
1 second-foot for one year (365 days) equals 31,536,000 cubic feet.
1 second-foot for one day equals 86,400 cubic feet.
1,000,000,000 (1 United States Billion) cubic feet equals 11,570 second-feet for one day.
1,000,000,000 cubic feet equals 413 second-feet for one 28-day month.
1,000,000,000 cubic feet equals 399 second-feet for one 29-day month.
1,000,000,000 cubic feet equals 386 second-feet for one 30-day month.
1,000,000,000 cubic feet equals 373 second-feet for one 31-day month.
100 United States gallons per minute equals 0.223 second-foot.
1,000,000 United States gallons per day equals 1.55 second-feet.
1 inch deep on 1 square mile equals 2,323,200 cubic feet.
1 inch deep on 1 square mile equals 0.0737 second-foot per year.
1 foot equals 0.3048 meter.
1 mile equals 1.60935 kilometers.
1 mile equals 5,280 feet.
1 square mile equals 2.59 square kilometers.
1 cubic foot equals 0.0283 cubic meter.
1 cubic foot of water weighs 62.5 pounds.
1 cubic meter per minute equals 0.5886 second-foot.
1 horsepower equals 550 foot-pounds per second.
1 horsepower equals 76.0 kilogram-meters per second
1 horsepower equals 746 watts.
1 horsepower equals 1 second-foot falling 8.80 feet.
1¼ horsepower equals about 1 kilowatt.

To calculate water power quickly: $\frac{\text{Sec. ft. x fall in feet}}{11}$ = net horsepower on water wheel realizing 80 per cent of theoretical power.

EXPLANATION OF DATA

The data presented in this report covers the period October 1, 1924, to September 30, 1925. At the first of January in most parts of the United States much of the precipitation in the preceding three months is stored as ground water, in the form of snow or ice or in ponds, lakes, and swamps, and this stored water passes off in the streams during the spring break-up. At the end of September, on the other hand, the only stored water available for run-off is possibly a small quantity in the ground; therefore the run-off for a year beginning October 1 is practically all derived from precipitation within that year.

The base data collected at gaging stations consist of records of stage, measurements of discharge, and general information used to supplement the gage heights and discharge measurements in determining the daily flow. The records of stage are obtained from

direct reading on a chain or staff gage. Measurements of discharge are made with a current meter by the general methods outlined in standard textbooks on the measurement of river discharge.

From the discharge measurements rating tables are prepared that give the discharge for any stage. The application of the daily mean gage heights to these rating tables gives the daily discharge from which the monthly and yearly mean discharge are computed.

The data presented for each gaging station comprises a description of the station, a table giving results of discharge measurements, a table showing daily mean gage height, a table showing the daily discharge, and a table of monthly and yearly discharge and run-off.

Where the base data are insufficient to determine the daily discharge, tables giving daily mean gage heights and results of discharge measurements are published.

The description of the station gives, in addition to statements regarding location and equipment, information in regard to any conditions that may affect the permanence of the stage-discharge relation, covering such subjects as the occurrence of ice, shifting of control, and the cause and effect of backwater. It gives also information as to diversions that decrease the flow at the gage, artificial regulation, maximum and minimum recorded stages, and the accuracy of the records.

The table of daily discharge gives the discharge in second-feet corresponding to the mean of the gage heights read each day. At stations on streams subject to sudden or rapid diurnal fluctuation the discharge obtained from the rating table and the daily mean gage heights may not be the true mean discharge for the day.

In the table of monthly discharge the column headed "Maximum" gives the mean flow for the day when the mean gage height was highest. As the gage height is the mean for the day it does not indicate correctly the stage when the water surface was at crest height, and the corresponding discharge was consequently larger than that given in the maximum column. Likewise, in the column headed "Minimum," the quantity given is the mean flow for the day when the mean gage height was lowest. The column headed "Mean" is the average flow in cubic feet per second during the month. On this average flow computations recorded in the remaining columns are based.

ACCURACY OF FIELD DATA AND COMPUTED RECORDS

The accuracy of stream-flow data depends primarily (1) on the permanence of a stage-discharge relation and (2) on the accuracy of observation of stage, measurements of flow, and interpretation of records.

A paragraph in the description of the station gives information regarding (1) permanence of the stage-discharge relation, (2) precision with which the discharge rating curve is defined, (3) refinement of gage readings, (4) frequency of gage readings, and (5) methods of applying daily mean gage height to the rating table to obtain the daily discharge.

For the rating tables "well defined" indicates, in general, that the rating is probably accurate within 5 per cent; "fairly well defined," within 10 per cent; "poorly defined," within 15 to 25 per cent. These notes are very general and are based on the plotting of the individual measurements with reference to the mean rating curve.

The monthly means for any station may represent with high accuracy the quantity of water flowing past the gage, but the figures showing discharge per square mile and depth of run-off in inches may be subject to some error caused by the inclusion of non-contributing districts in the measured drainage area, or by inability to interpret the effect of artificial regulation of the flow of the river above the station.

The table of monthly discharge gives only a general idea of the flow at the station and should not be used for other than preliminary estimates; the tables of daily discharge allow more detailed studies of the variation in flow. It should be borne in mind, however, that the observations in each succeeding year may be expected to throw new light on data previously published.

The Commonwealth of Pennsylvania is divided into three main drainage basins; the Delaware, Susquehanna and Ohio. The hydrographic data in the following pages are divided into three groups, corresponding to these three basins. The stations in each basin are shown in the following tables and their location is indicated on the map (Plate II) with reference number corresponding to those given in the tables.

TABLE NO. VI

*Gaging Stations in Delaware Basin**

Station No.	Stream	Location
1	Lackawaxen River	West Hawley
2	Wallenpaupack Creek	Wilsonville
3	Shohola Creek	Shohola
4	Delaware River	Port Jervis, N. Y.
5	Bushkill Creek	Shoemakers
6	McMichaels Creek	Stroudsburg
7	Delaware River	Belvidere, N. J.
8	Lehigh River	Tannery
9	Little Lehigh Creek	Allentown
10	Lehigh River	Bethlehem
11	Delaware River	Riegelsville
12	Delaware River	Trenton, N. J.
13	Little Schuylkill River	Tamaqua
14	Schuylkill River	Reading
15	Perkiomen Creek	Graters Ford
16	Brandywine Creek	Chadds Ford

*For information available on each station, see description of station.

TABLE NO. VII

*Gaging Stations in Susquehanna Basin**

Station No.	Stream	Location
1	North Branch Susquehanna River	Binghamton, N. Y.
2	Chemung River	Corning, N. Y.
3	North Branch Susquehanna River	Towanda
4	Towanda Creek	Monroeton
5	Tunkhannock Creek	Dixon
6	Lackawanna River	Moosic
7	North Branch Susquehanna River	Wilkes-Barre
8	Wapwallopen Creek	Wapwallopen
9	Nescopeck Creek	St. Johns
10	Fishing Creek	Bloomsburg
11	North Branch Susquehanna River	Danville
12	West Branch Susquehanna River	Bower
13	Clearfield Creek	Dimeling
14	Driftwood Branch Sinnemahoning Creek	Sterling Run
15	West Branch Susquehanna River	Renovo
16	West Branch Susquehanna River	Lock Haven
17	Bald Eagle Creek	Milesburg
18	Bald Eagle Creek	Beech Creek Station
19	Pine Creek	Cedar Run
20	Lycoming Creek	Trout Run
21	West Branch Susquehanna River	Williamsport
22	Loyalsock Creek	Loyalsock
23	Susquehanna River	Sunbury
24	Frankstown Branch Juniata River	Williamsburg
25	Little Juniata River	Tyrone
26	Raystown Branch Juniata River	Saxton
27	Tuscarora Creek	Port Royal
28	Juniata River	Newport
29	Susquehanna River	Harrisburg
30	Little Swatara Creek	Pine Grove
31	Swatara Creek	Harpers
32	South Branch Codorus Creek	York

*For information available on each station, see description of station.

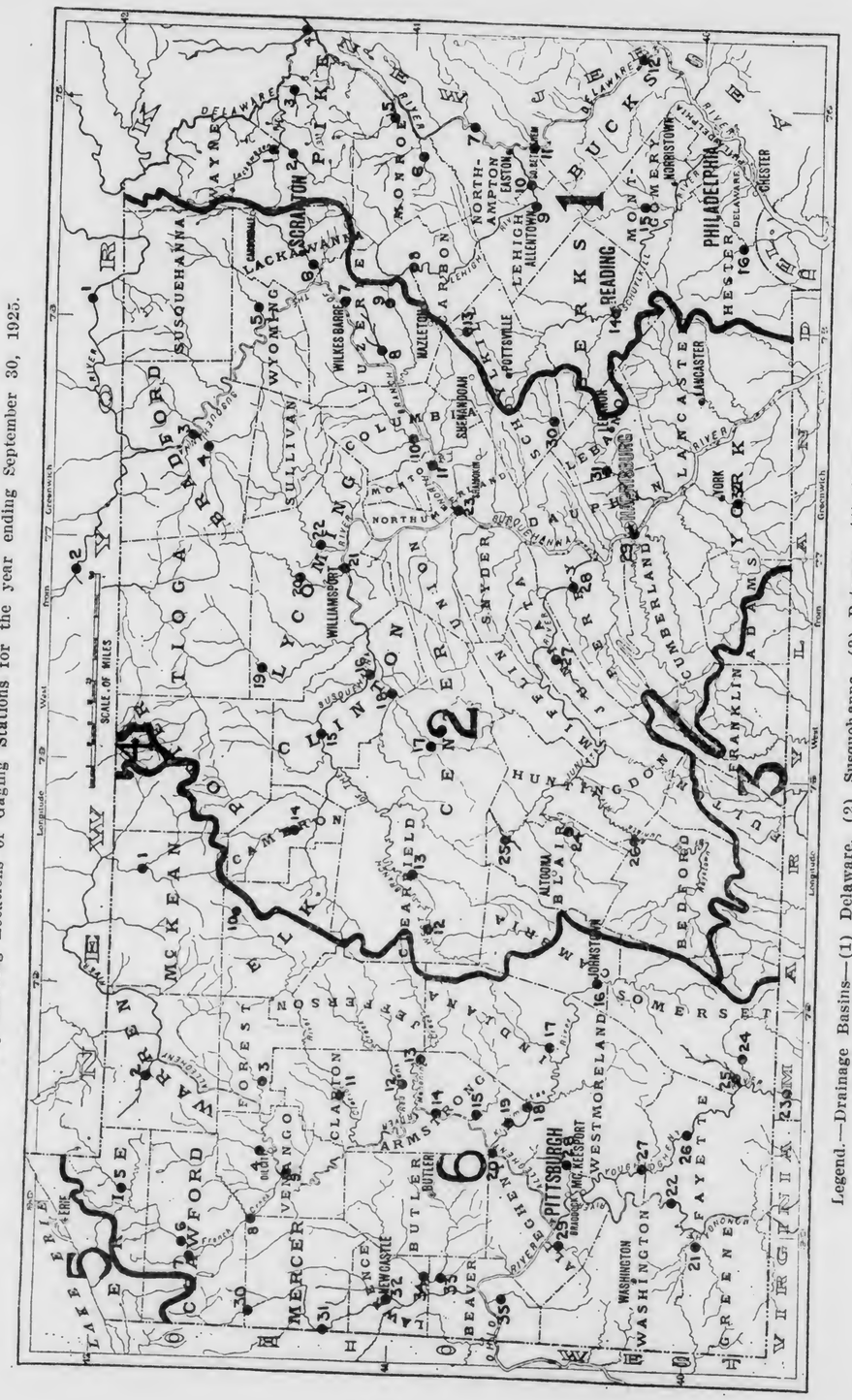
TABLE NO. VIII

*Gaging Station in Ohio Basin**

Station No.	Stream	Location
1	Allegheny River	Larabee
2	Brokenstraw Creek	Youngsville
3	Tionesta Creek	Nebraska
4	Oil Creek	Rouseville
5	French Creek	Kimmeytown
6	French Creek	Saegertown
7	Cussewago Creek	Meadville
8	French Creek	Carlton
9	Allegheny River	Franklin
10	East Branch Clarion River	Instanter
11	Clarion River	Piney
12	Red Bank Creek	Saint Charles
13	Mahoning Creek	Dayton
14	Allegheny River	Kittanning
15	Crooked Creek	Hileman's Farm
16	Stony Creek	Johnstown
17	Blacklick Creek	Blacklick
18	Kiskiminitas River	Avonmore
19	Kiskiminitas River	Vandergrift
20	Allegheny River	Freeport
21	South Fork Ten Mile Creek	Pollock's Mill
22	Monongahela River	South Brownsville
23	Youghiogheny River	Friendsville, Md.
24	Casselman River	Markleton
25	Laurel Hill Creek	Ursina
26	Youghiogheny River	Connellsville
27	Youghiogheny River	Sutersville
28	Turtle Creek	Trafford
29	Chartiers Creek	Carnegie
30	Shenango River	Jamestown
31	Shenango River	Sharon
32	Shenango River	New Castle
33	Connoquenessing Creek	Hazen
34	Slippery Rock Creek	Wurtemburg
35	Raccoon Creek	Moffatt's Mill

*For information available on each station, see description of station.

DEPARTMENT OF FORESTS AND WATERS
WATER RESOURCES SERVICE
Map Showing Locations of Gaging Stations for the year ending September 30, 1925.



Legend.—Drainage Basins—(1) Delaware, (2) Susquehanna, (3) Potomac, (4) Genesee, (5) Erie, (6) Ohio.
PLATE II

GAGING STATION RECORDS

DELAWARE BASIN

DELAWARE BASIN—STATION NO. 1

LACKAWAXEN RIVER NEAR WEST HAWLEY

Location.—At single-span steel highway bridge, known as Riverside Bridge, West Hawley, Wayne County, about one-half mile upstream from the mouth of Middle Creek.

Drainage Area.—212 square miles.

Records Available.—May 19, 1921, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by J. S. Pennell and F. C. Tyce.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both sides of the channel are outlined by retaining walls downstream from the bridge. Banks are of medium height and subject to overflow at extremely high stages. Bed is composed of gravel. Control is at a riffle about 50 feet downstream from the gage, where the bed is composed of coarse gravel.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 10.2 feet at midnight September 30-October 1, 1924, when the stream was falling (discharge, about 7,300 second-feet); 7.8 feet, estimated from hydrograph, was reached at 9 p. m. February 11, but the water was held back by an ice jam; a crest stage of 7.2 feet, estimated from hydrograph, took place at 7 a. m. February 12 (discharge, about 4,500 second-feet); minimum, 1.10 feet at 7.25 a. m. November 8 and 7.45 a. m. November 13 (discharge, 47 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined from 50 to 500 second-feet and fairly well defined between 500 and 3,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for discharge above 500 second-feet when they may be only fair.

Discharge measurements of Lackawaxen River near West Hawley, during the year ending September 30, 1925.

No.	Date	Made by	Gage Height	Discharge
			Feet	Sec. ft.
7	Oct. 1	C. K. Weigle	5.83	2,780
8	4	do	2.44	424
9	18	do	1.51	124
10	May 15	H. J. McIntyre	1.92	264
11	15	do	1.92	268

Daily Mean Gage Height, in feet, of Lackawaxen River near West Hawley, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.49	1.15	1.50	1.90	2.20	2.53	2.75	2.03	1.61	1.38	2.06	1.35
2	3.72	1.24	1.62	2.10	2.30	2.75	2.57	2.02	1.65	1.38	1.93	1.28
3	2.90	1.30	1.59	2.09	2.35	2.55	2.47	1.92	1.64	1.45	1.78	1.31
4	2.47	1.21	1.53	2.00	2.20	2.27	2.34	1.85	1.60	1.36	1.69	1.34
5	2.20	1.26	1.50	1.80	2.31	2.14	2.28	1.75	1.49	2.08	1.66	1.38
6	2.09	1.17	1.58	1.84	2.24	2.10	-------	1.66	1.39	2.03	1.69	1.34
7	2.00	1.20	1.60	1.90	-------	2.39	2.09	1.64	1.34	1.67	1.74	1.77
8	1.91	1.16	1.79	1.88	2.34	2.60	1.95	1.62	1.43	1.89	1.64	1.80
9	1.80	1.14	2.05	2.00	2.41	2.64	1.85	1.61	1.85	1.84	1.92	1.55
10	1.77	1.17	1.84	2.14	2.87	2.62	1.85	1.58	1.69	1.63	3.26	1.48
11	1.73	1.17	1.72	2.30	5.38	2.70	1.88	2.09	1.55	2.02	2.25	1.44
12	1.66	1.26	1.61	1.91	6.75	3.14	1.84	2.55	1.50	1.72	1.97	1.39
13	1.64	1.16	1.60	1.90	4.49	2.65	1.76	2.16	1.37	1.55	1.97	1.70
14	1.58	1.32	1.56	1.95	3.58	2.58	-------	1.98	1.32	1.46	2.53	3.34
15	1.54	1.18	1.62	2.10	3.35	-------	1.97	1.90	1.37	1.45	2.15	2.45
16	1.54	1.20	1.83	2.03	3.50	2.53	1.95	1.82	1.34	1.44	1.97	4.11
17	1.48	1.34	1.70	2.02	3.38	2.46	1.80	2.08	1.30	1.69	1.87	2.95
18	1.53	1.41	2.22	1.94	3.05	2.70	1.70	2.13	1.27	1.60	1.77	2.50
19	1.46	1.42	2.50	1.90	2.54	3.41	1.90	1.96	1.24	1.46	1.67	2.22
20	1.41	1.48	2.33	-------	2.57	3.23	2.47	1.81	1.21	1.44	1.66	1.99
21	1.40	1.37	1.63	2.04	2.79	2.75	2.01	1.79	1.22	1.41	1.66	2.02
22	1.39	1.82	1.85	2.08	3.17	2.50	-------	1.68	1.34	2.38	1.67	1.87
23	1.36	2.98	1.87	2.03	3.98	2.30	1.86	1.64	1.28	2.82	1.58	1.75
24	1.28	2.29	-------	1.92	4.70	2.25	1.84	1.78	1.78	2.10	1.55	1.67
25	1.20	2.05	1.96	2.04	4.28	2.18	1.76	2.35	1.38	1.80	1.50	1.69
26	1.26	1.88	1.85	2.08	4.02	2.12	1.86	2.09	1.43	1.81	1.49	1.56
27	1.22	1.71	1.89	1.95	3.39	2.08	1.77	1.84	1.41	3.56	1.45	1.53
28	1.28	1.66	2.35	2.11	2.70	2.67	1.72	1.77	1.53	2.47	1.42	1.62
29	1.23	1.62	2.10	2.12	-------	2.60	1.72	1.72	1.45	2.46	1.42	1.51
30	1.20	1.60	1.87	-------	-------	-------	1.76	1.75	1.49	2.06	1.31	1.52
31	1.27	-------	1.77	2.20	-------	3.03	-------	1.70	-------	1.87	1.39	-------

Note—Stage-discharge relation Nov. 17-20 and Dec. 22 to Feb. 11 affected by ice. Gage height Dec. 24, Jan. 20, 30, Feb. 7, Mar. 30, Apr. 6, 14 and 22 not observed and Mar. 15 unsatisfactory.

Daily discharge, in second-feet, of Lackawaxen River near West Hawley, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,380	54	122	150	110	498	595	598	152	94	298	88
2	1,160	67	155	140	120	595	498	280	167	94	256	74
3	670	77	146	140	120	498	454	252	161	110	199	79
4	454	62	130	140	120	372	412	228	149	90	176	85
5	352	70	122	140	120	334	392	196	120	315	167	94
6	315	56	144	140	120	315	360	167	96	298	176	85
7	280	60	149	150	120	432	315	161	85	170	192	202
8	248	55	209	150	140	520	262	155	105	242	161	212
9	212	52	298	140	140	545	228	152	228	225	256	136
10	202	56	225	140	280	520	228	144	176	158	960	117
11	189	56	186	120	1,200	570	238	315	136	280	372	108
12	167	70	152	120	3,680	780	225	498	122	186	270	96
13	161	55	149	110	1,720	545	199	334	92	136	270	179
14	144	81	138	110	1,090	520	220	273	81	112	545	900
15	136	57	155	110	960	500	270	245	92	105	334	454
16	123	60	222	110	1,020	498	262	219	85	108	270	1,440
17	117	60	205	120	960	454	212	315	77	176	235	698
18	130	60	352	120	725	570	179	334	72	149	202	475
19	112	60	475	120	498	960	245	266	67	112	170	352
20	100	65	412	130	498	840	454	215	62	108	167	276
21	98	92	158	130	620	595	298	209	63	100	167	280
22	77	219	140	130	840	475	260	173	85	412	170	235
23	90	725	140	120	1,370	392	232	161	74	620	144	196
24	74	392	150	120	1,880	372	225	205	57	315	136	170
25	60	298	180	110	1,580	352	199	412	94	212	122	149
26	70	238	160	100	1,370	315	232	315	105	215	120	138
27	63	182	150	95	960	315	202	225	106	1,600	110	130
28	74	167	140	95	570	545	186	202	81	454	103	155
29	65	155	140	95	-------	500	186	186	110	432	103	146
30	60	149	150	100	-------	500	199	196	120	280	85	127
31	72	-------	160	110	-------	725	-------	170	-------	255	96	-------

Note.—Discharge estimated Nov. 17-20 and Dec. 22 to Feb. 11, because of ice, from weather records, study of gage height graph and comparison with similar studies for Lehigh River at Tannery and Lackawanna River at Moosic, and Mar. 15, because of unsatisfactory gage height record, and Apr. 6, 14 and 22, because of no gage height record, from weather records, study of gage height graph and comparison with discharge at other stations.

Monthly discharge of Lackawaxen River near West Hawley, for the year ending September 30, 1925.

(Drainage area 212 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	3,380	60	305	1.44	1.66
November	725	52	128	.604	.67
December	475	122	188	.887	1.02
January	150	95	123	.580	.67
February	3,680	110	819	3.86	4.02
March	960	315	514	2.42	2.79
April	595	179	282	1.33	1.48
May	498	144	242	1.14	1.31
June	228	57	107	.505	.56
July	1,090	90	246	1.16	1.34
August	930	85	227	1.07	1.23
September	1,440	74	263	1.24	1.38
The Year	3,680	52	284	1.34	18.13

DELAWARE BASIN—STATION NO. 2

WALLENPAUPACK CREEK AT WILSONVILLE

Location.—At two-span steel highway bridge, about one and a half miles south of Hawley, at Wilsonville, Wayne County.

Drainage Area—227 square miles.

Records Available.—July 3, 1908, to September 30, 1925, excepting August 1 to September 14, 1923, and September 1 to November 11, 1924.

Gages.—Vertical staff attached to downstream end of pier and a Barrett and Lawrence water-stage recorder installed on top downstream end of pier. Recorder inspected and staff gage read by E. A. Appert. Zero elevation of gages, 1,146.78 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Right bank overflows at extremely high stages; left is high and not subject to overflow. Bed is composed of rock. Control is a log weir, about 70 feet downstream from the gage.

Extremes of Discharge.—Maximum stage during the period, November 12 to September 30, 3.65 feet on February 12 (discharge, 2,850 second-feet); minimum, 0.65 foot on November 18 (discharge, 54 second-feet).

Ice.—Stage-discharge relation seldom affected by ice.

Regulation.—Flow during low stages regulated, for the operation of silk mills, by use of flashboards on a three foot concrete dam about 35 feet upstream from the gage.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 4,000 second-feet. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

Cooperation.—Records furnished by Pennsylvania Power and Light Company, Allentown, Pa.

Discharge measurements of Wallenpaupack Creek at Wilsonville, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
34	Oct. 1	Penna. Power & Light Co.	4.25	4,410
35	4	C. K. Weigle	2.28	1,230
36	Nov. 24	Penna. Power & Light Co.	1.75	719
37	Feb. 11	do	1.54	585
38	12	do	3.00	1,960
39	12	do	3.38	2,590
40	13	do	3.60	2,850
41	14	C. K. Weigle	3.15	2,200
42	15	Penna. Power & Light Co.	2.62	1,680
43	16	do	2.38	1,390
44	21	C. K. Weigle	1.87	787
45	Mar. 7	do	1.50	488

Daily Mean Gage Height, in feet, of Wallenpaupack Creek at Wilsonville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	-------	1.00	0.90	1.35	-------	1.55	1.10	1.25	0.90	0.90	0.75
2	-------	-------	1.00	.90	1.35	-------	1.58	1.12	1.25	.80	.90	.75
3	-------	-------	1.00	.90	1.35	-------	1.58	1.15	1.35	.85	.90	.75
4	-------	-------	1.00	.92	1.30	1.40	1.55	1.15	1.30	.90	.85	.75
5	-------	-------	.90	.92	1.30	1.44	1.50	1.10	1.19	.90	.78	.75
6	-------	-------	.90	.90	1.30	1.46	1.45	1.08	1.05	.95	.80	.75
7	-------	-------	.95	.90	1.30	1.48	1.40	1.05	.92	.95	.80	.78
8	-------	-------	1.24	.90	1.35	1.52	1.35	1.05	.90	.88	.82	.76
9	-------	-------	1.25	.93	1.40	1.50	1.28	1.05	.92	.90	.85	.75
10	-------	-------	1.20	.90	1,60	1.50	1.25	1.08	.92	.88	.90	.75
11	-------	-------	1.20	.90	3.20	1.50	1.28	1.12	.95	.84	.98	.75
12	-------	0.70	1.18	.93	3.65	1.50	1.28	1.50	.88	.80	.90	.75
13	-------	-------	1.18	.92	3.15	1.52	1.25	1.15	.85	.78	.85	.75
14	-------	-------	-------	.90	2.65	1.62	1.22	1.40	.85	.75	.98	.75
15	-------	.75	1.18	.90	2.39	1.60	1.20	1.35	.85	.75	.94	.78
16	-------	-------	-------	.95	2.35	1.50	1.30	1.35	.90	.68	.90	.78
17	-------	.70	-------	.90	2.30	1.52	1.30	1.35	.88	.68	.85	.75
18	-------	.65	1.20	.90	2.00	1.51	1.30	1.35	.88	.68	.80	.75
19	-------	.65	1.23	1.30	1.93	1.52	1.30	1.25	.82	.68	.78	.75
20	-------	.70	-------	1.25	1.87	1.55	1.30	1.20	.80	.70	.75	.75
21	-------	.68	.80	1.20	1.90	1.52	1.30	1.15	.78	.75	.75	.75
22	-------	.80	.80	1.15	2.00	1.45	1.32	1.10	.76	.82	.75	.73
23	-------	1.60	.80	1.17	2.08	1.40	1.18	1.15	.75	.88	.78	.72
24	-------	1.75	.80	1.20	2.15	1.35	1.16	1.23	.75	.88	.80	.70
25	-------	1.70	.85	1.28	2.17	1.20	1.15	1.50	.78	.88	.80	.70
26	-------	-------	.85	1.20	2.18	1.25	1.15	1.65	.78	.90	.78	.70
27	-------	-------	.83	1.30	2.20	1.25	1.12	1.58	.78	.85	.78	.68
28	-------	1.15	.90	1.35	2.20	1.30	1.12	1.45	.80	.92	.76	.66
29	-------	1.06	.87	1.35	-------	1.40	1.10	1.32	.82	.90	.75	.66
30	-------	-------	.83	1.35	-------	1.55	1.10	1.28	.95	.88	.75	.60
31	-------	-------	.87	1.35	-------	1.55	-------	1.27	-------	.88	.75	-------

Note.—Gage height not observed on days of no record. Stage-discharge relation Dec. 1-4, 11-17, 20, Jan. 19 to Feb. 11 and Feb. 26 to Mar. 3 affected by ice.

Daily discharge, in second-feet, of Wallenpaupack Creek at Wilsonville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	-------	190	162	140	500	567	271	362	162	162	94
2	-------	-------	190	162	150	550	604	283	362	115	162	94
3	-------	-------	170	162	160	500	604	300	426	138	162	94
4	-------	-------	160	173	160	460	567	300	393	162	138	94
5	-------	-------	162	173	160	488	530	271	324	162	107	94
6	-------	-------	162	162	160	502	495	260	243	188	115	94
7	-------	-------	188	162	160	516	460	243	173	188	115	107
8	-------	-------	255	162	160	530	426	243	162	153	124	98
9	-------	-------	362	178	190	530	380	243	173	162	138	94
10	-------	-------	330	162	240	530	362	260	173	153	162	94
11	-------	-------	260	162	950	530	380	283	188	134	204	94
12	-------	73	220	178	2,850	530	380	530	153	115	162	94
13	-------	75	170	173	2,300	530	362	300	138	107	138	94
14	-------	95	160	162	1,540	604	343	460	135	94	204	94
15	-------	94	160	162	1,320	604	330	426	138	94	183	107
16	-------	90	190	188	1,270	530	393	426	362	65	162	107
17	-------	73	240	162	1,220	530	393	426	155	65	138	94
18	-------	54	330	162	937	530	393	426	153	65	115	94
19	-------	54	349	160	893	520	393	362	124	65	107	94
20	-------	73	160	160	806	567	393	330	115	73	94	94
21	-------	65	115	160	849	530	393	300	107	94	94	94
22	-------	115	115	150	937	495	406	271	98	124	94	86
23	-------	604	115	140	1,030	460	318	300	94	153	107	81
24	-------	723	115	140	1,080	426	306	380	94	153	115	73
25	-------	682	138	140	1,080	330	300	530	107	153	115	73
26	-------	550	138	140	1,000	362	300	643	107	162	107	73
27	-------	400	129	120	750	362	283	604	107	188	107	65
28	-------	300	162	120	550	393	283	495	115	173	98	58
29	-------	249	148	120	-------	460	271	406	124	162	94	58
30	-------	220	129	120	-------	567	271	380	188	153	94	58
31	-------	-------	148	120	-------	567	-------	374	-------	153	94	-------

Note.—Discharge Oct. 1 to Nov. 11 not determined, because of no gage height record. Discharge estimated Nov. 13, 14, 16, 26, 27 and 30, because of no gage height record, and Dec. 1-4, 11-17, 20, Jan. 19 to Feb. 11 and Feb. 26 to Mar. 3, because of ice, from weather records, study of gage height graph and comparison with discharge of Lackawaxen River near West Hawley and Lackawanna River at Moosic.

Monthly discharge of Wappenpaupack Creek at Wilsonville, for the year ending September 30, 1925.

(Drainage area 227 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	-------	-------	-------	-------	-------
November (12-30)	723	-------	242	1.07	0.76
December	362	115	192	.846	.98
January	188	120	155	.683	.79
February	2 850	140	823	3.63	3.78
March	604	230	501	2.21	2.55
April	604	271	396	1.74	1.94
May	643	243	365	1.61	1.86
June	426	94	180	.793	.88
July	188	65	133	.586	.68
August	204	94	129	.568	.65
September	107	58	88.1	.388	.43

DELAWARE BASIN—STATION NO. 3

SHOHOLA CREEK NEAR SHOHOLA

Location.—At single-span steel highway bridge about one and three-quarter miles south of Shohola, Pike County.

Drainage Area.—82 square miles.

Records Available.—February 19, 1919, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Walter P. Hess.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Right bank is high and not subject to overflow; left is of medium height and overflows during extremely high stages. Bed is composed of coarse gravel and large stones. Control is at the first of a series of riffles about 150 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 5.0 feet at noon October 1 (discharge, about 2,020 second-feet); minimum, 1.2 feet several days in September (discharge, 13 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 8 and 250 second-feet and fairly well defined from 250 to 1,000 second-feet. Gage read to tenths once daily; during high stages more frequently. Daily discharge ascertained by applying to rating table daily mean gage height, computed from a continuous daily hydrograph, obtained by plotting gage readings. Results good except for discharges above 250 second-feet when they may be only fair.

Cooperation.—Station is maintained in cooperation with Gannett, Seelye & Fleming, Inc., Engineers, Harrisburg, Pa.

Discharge measurements of Shohola Creek near Shohola, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
10	Oct. 2	C. K. Weigle	3.83	964
11	May 15	H. J. McIntyre	2.38	213
12	15	do	2.37	216

Daily Mean Gage Height, in feet, of Shohola Creek near Shohola, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.95	1.4	2.5	3.3	2.3	2.9	2.7	2.3	2.2	2.0	2.0	1.3
2	4.1	1.3	2.4	3.3	2.3	3.0	2.6	2.3	2.4	2.3	2.0	1.2
3	3.25	1.3	2.4	3.2	2.3	3.0	2.6	2.1	2.4	2.3	2.0	1.2
4	3.0	1.3	2.37	3.3	2.3	3.0	2.6	2.1	2.4	2.2	1.9	1.3
5	2.5	1.3	2.3	3.3	2.3	2.6	2.5	2.1	2.2	2.2	1.9	1.3
6	2.4	1.3	2.6	3.0	2.3	2.6	2.5	2.0	2.2	2.1	1.7	1.2
7	2.2	1.4	2.7	3.3	2.3	2.6	2.5	2.0	2.1	2.0	1.7	1.4
8	2.1	1.4	2.73	3.3	2.4	2.6	2.5	1.9	2.1	1.8	1.7	1.4
9	2.1	1.4	2.84	3.2	3.15	2.5	2.4	1.9	2.1	1.8	1.8	1.4
10	2.0	1.4	2.6	3.0	3.75	2.5	2.2	1.9	2.2	1.7	1.9	1.3
11	1.9	1.4	2.5	2.8	4.0	2.5	2.2	2.0	2.1	1.8	2.0	1.3
12	1.9	1.5	2.4	2.7	3.7	2.5	2.2	2.3	2.0	1.7	2.0	1.3
13	1.9	1.5	2.4	2.6	3.5	2.4	2.2	2.3	2.0	1.7	1.9	1.4
14	1.9	1.6	2.2	2.5	3.5	2.6	2.2	2.3	2.0	1.5	2.0	1.6
15	1.8	1.6	2.2	2.5	3.4	2.6	2.2	2.4	1.9	1.5	1.9	1.7
16	1.8	1.6	2.1	2.5	3.3	2.6	2.1	2.3	1.9	1.5	1.9	1.7
17	1.7	1.6	2.1	2.4	3.2	2.5	2.1	2.3	1.8	1.5	1.9	1.6
18	1.7	1.6	2.2	2.5	3.2	2.5	2.1	2.3	1.8	1.5	1.6	1.6
19	1.7	1.7	2.2	2.4	3.2	2.5	2.1	2.2	1.6	1.6	1.6	1.6
20	1.6	1.7	2.2	2.4	3.2	2.5	2.1	2.2	1.6	1.5	1.5	1.5
21	1.6	1.7	2.1	2.2	3.1	2.4	2.1	2.2	1.5	1.5	1.5	1.5
22	1.6	1.89	2.0	2.2	3.1	2.3	2.1	2.1	1.6	1.6	1.6	1.4
23	1.5	2.2	2.0	2.1	2.8	2.3	2.1	2.14	1.6	1.7	1.5	1.4
24	1.5	2.23	2.1	2.1	2.8	2.3	2.1	2.47	1.5	1.8	1.5	1.3
25	1.5	2.4	2.1	2.2	2.9	2.2	2.2	2.67	1.5	1.8	1.5	1.2
26	1.5	2.4	2.5	2.2	3.0	2.2	2.2	2.6	1.6	1.9	1.4	1.2
27	1.4	2.4	2.5	2.3	3.0	2.2	2.1	2.53	1.6	1.9	1.4	1.2
28	1.4	2.45	3.4	2.2	3.0	2.6	2.1	2.3	1.5	2.0	1.3	1.2
29	1.4	2.7	3.4	2.2	-------	2.6	2.1	2.3	1.8	2.2	1.3	1.2
30	1.4	2.6	3.4	2.2	-------	2.6	2.1	2.3	2.0	2.0	1.3	1.2
31	1.4	-------	3.3	2.2	-------	2.7	-------	2.3	-------	1.9	1.3	-------

Note.—Stage-discharge relation Nov. 19, 20, Nov. 27 to Dec 7, Dec. 13, 15 and Dec. 23 to Feb. 10 affected by ice.

Daily discharge, in second-feet, of Shohola Creek near Shohola, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,020	27	70	65	55	408	323	189	163	117	117	19
2	1,170	19	65	65	55	455	285	189	218	189	117	13
3	586	19	65	65	55	455	285	139	218	189	117	13
4	455	19	70	70	60	455	285	139	218	163	97	19
5	250	19	70	70	60	285	250	139	163	163	97	19
6	218	19	95	70	60	285	250	117	163	139	63	13
7	163	27	200	65	65	285	250	117	139	117	63	27
8	139	27	344	65	65	285	250	97	139	79	63	27
9	139	27	386	63	70	250	218	97	139	79	79	27
10	117	27	285	55	260	250	163	97	163	63	97	19
11	97	27	250	55	1,090	250	163	117	139	79	117	19
12	97	37	218	50	868	250	163	189	117	63	117	19
13	97	37	190	50	735	218	163	189	117	63	37	27
14	97	49	163	50	735	285	163	189	117	37	117	49
15	79	49	150	50	673	285	163	218	97	37	97	63
16	79	49	139	50	614	285	139	189	97	37	97	63
17	63	49	139	55	558	250	139	189	79	37	97	49
18	63	49	163	55	558	250	139	189	79	37	49	49
19	63	50	163	55	558	250	139	163	49	49	49	49
20	49	50	163	55	558	250	139	163	49	37	37	37
21	49	63	139	55	505	218	139	163	37	37	37	37
22	49	95	117	55	505	189	139	139	49	49	49	27
23	37	163	95	55	364	189	139	151	49	63	37	27
24	37	176	80	50	364	189	139	234	37	79	37	19
25	37	218	70	50	408	163	163	304	37	79	37	13
26	37	218	70	48	455	163	163	285	49	97	27	13
27	27	150	80	44	455	163	139	268	49	97	27	13
28	27	110	80	44	455	285	139	189	37	117	19	13
29	27	90	70	44	-------	285	139	189	79	163	19	13
30	27	75	65	48	-------	285	139	189	117	117	19	13
31	27	-------	65	50	-------	323	-------	189	-------	97	19	-------

Note.—Discharge Nov. 19, 20, Nov. 27 to Dec. 7, Dec. 13, 15 and Dec. 23 to Feb. 10 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Lackawaxen River near West Hawley, Wallenpaupack Creek at Wilsonville and Bushkill Creek near Shoemakers.

Monthly discharge of Shohola Creek near Shohola, for the year ending September 30, 1925.

(Drainage area 82 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	2,020	27	207	2.52	2.90
November	218	19	67.8	.827	.92
December	386	65	139	1.70	1.96
January	70	44	55.4	.676	.78
February	1,090	55	402	4.90	5.10
March	455	163	272	3.32	3.83
April	323	139	134	2.24	2.50
May	304	97	175	2.13	2.46
June	218	37	107	1.30	1.45
July	189	37	89.3	1.09	1.26
August	117	19	68.1	.830	.96
September	63	13	26.9	.328	.37
The Year	2,020	13	148	1.80	24.49

DELAWARE BASIN—STATION NO. 4

DELAWARE RIVER AT PORT JERVIS, N. Y.

Location.—At steel highway bridge, Port Jervis, Orange County, one and a half miles above mouth of Neversink River, and six miles below mouth of Mongaup River.

Drainage Area.—3,070 square miles (measured on topographic maps).

Records Available—October 12, 1904, to September 30, 1925.

Gage.—Chain on downstream side of left span of highway bridge, and staff in two sections; the upper section, vertical and attached to downstream end of left abutment, and the lower section inclined, about 30 feet downstream. Gages read by John Bisland.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Gravel; occasionally shifting.

Extremes of Discharge.—Maximum stage recorded during year, 14.9 feet at 8 a. m. February 12 (discharge, 83,100 second-feet); minimum stage, 1.3 feet at 8 a. m. and 5 p. m. November 20 (discharge, 525 second-feet).

1904-1925: During the flood of October 10-11, 1903, a crest stage of 23.3 feet gage height was observed by Mr. Righter, City Engineer of Port Jervis. This gage height corresponds to a discharge of about 155,000 second-feet.

Maximum stage recorded, 18.5 feet at 5 p. m. March 7, 1923 (stage-discharge relation affected by ice); maximum stage for open water, 16.0 feet at 8 a. m. March 28, 1914 (discharge, 92,700 second-feet); minimum stage, 0.60 foot at 8 a. m. September 22 and 23, 1908 (discharge, 175 second-feet).

Ice.—Stage-discharge relation seriously affected by ice.

Accuracy.—Stage-discharge relation changed at time of flood, February 11. Rating curve used before the change, fairly well defined between 600 and 30,000 second-feet; rating used subsequently, fairly well defined between the same limits. Stage-discharge relation affected by ice from December to February. Gage read to quarter-tenths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Records good, except during periods of ice effect, when they are fair.

Cooperation.—Record furnished by the United States Geological Survey Office, Albany, N. Y.

Discharge measurements of Delaware River at Port Jervis, N. Y., during the year ending September 30, 1925.

No.	Date	Made by	Gage Height	Discharge
			Feet	Sec. ft.
89	Jan 14	Lamson and Mifflin	a 3.46	1,340
90	Mar. 16	J. L. Lamson	4.80	9,530
91	Apr. 14	Mifflin and Harrington	3.60	4,770
92	22	A. W. Harrington	4.61	8,470
93	May 3	W. B. Mifflin	3.94	5,930
94	24	do	3.15	3,650
95	July 17	Mifflin and Lamson	2.04	1,430
96	Aug. 5	Harrington and Porter	2.61	2,310

a Stage-discharge relation affected by ice.

Daily Mean Gage Height, in feet, of Delaware River at Port Jervis, N. Y., for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13.8	1.7	2.85	2.45	3.4	5.6	5.4	3.4	3.0	2.15	3.3	1.7
2	10.5	1.7	2.7	2.4	3.4	5.4	5.3	4.0	3.1	2.25	3.2	1.6
3	7.0	1.7	2.35	3.3	3.4	4.8	5.1	3.9	3.2	2.25	3.0	1.55
4	5.7	1.6	2.8	3.2	3.6	4.5	5.2	3.8	3.2	2.25	2.8	1.5
5	4.8	1.6	2.45	3.1	3.6	4.3	5.0	3.7	2.85	2.25	2.6	1.5
6	4.4	1.55	2.45	3.9	3.6	4.1	4.8	3.6	2.65	3.2	2.6	1.5
7	4.0	1.6	2.75	3.8	3.6	4.4	4.5	3.5	2.5	2.85	2.55	1.85
8	3.7	1.5	3.1	3.7	3.6	4.5	4.4	3.4	2.35	2.35	2.6	2.2
9	3.5	1.5	3.6	3.3	3.6	4.4	4.1	3.2	2.35	2.55	2.45	2.2
10	3.3	1.5	3.6	3.3	3.9	4.5	4.1	3.1	3.0	2.5	3.4	2.2
11	3.0	1.5	3.2	3.4	5.1	4.4	4.0	3.2	2.6	2.35	3.7	2.15
12	3.0	1.55	3.5	3.4	14.7	4.8	3.8	4.3	2.5	3.1	3.3	1.9
13	2.75	1.55	3.2	3.6	10.3	4.7	3.7	4.6	2.4	2.65	2.9	2.15
14	2.6	1.5	3.3	3.5	7.5	4.5	3.6	4.1	2.3	2.35	3.3	3.4
15	2.5	1.55	3.0	3.3	6.4	4.9	3.7	3.9	2.2	2.05	3.5	6.1
16	2.5	1.5	2.7	3.3	6.4	4.7	3.8	3.9	2.2	1.95	3.4	5.2
17	2.4	1.5	2.8	3.5	6.4	4.7	3.7	3.7	2.2	2.1	3.0	5.7
18	2.35	1.4	3.1	3.5	6.4	4.8	3.6	3.9	2.15	2.8	2.75	4.6
19	2.3	1.35	4.0	3.5	4.8	5.1	3.5	3.7	2.1	2.75	2.6	4.1
20	2.1	1.3	4.0	3.4	4.6	5.4	4.0	3.5	1.95	2.35	2.45	3.8
21	2.1	1.55	3.6	3.4	4.5	5.0	4.6	3.3	1.9	2.15	2.4	3.3
22	2.0	1.7	3.2	3.4	4.4	4.7	4.7	3.1	1.85	2.3	2.4	2.9
23	2.1	3.6	3.1	3.4	5.6	4.5	4.5	2.95	1.85	4.4	2.3	2.85
24	2.0	5.4	3.1	3.4	6.9	4.4	4.2	3.1	1.7	4.3	2.3	2.8
25	2.0	4.2	3.1	3.4	6.9	4.0	4.0	3.4	1.75	3.8	2.2	2.7
26	2.0	3.7	3.0	3.4	6.4	3.9	4.2	3.8	2.15	3.3	2.1	2.65
27	1.95	3.3	2.85	3.4	5.9	3.7	4.3	3.7	2.1	5.3	2.1	2.5
28	1.85	3.2	2.6	3.2	5.8	4.1	4.0	3.5	2.05	4.8	1.95	2.4
29	1.8	3.0	2.45	3.3	-------	5.8	3.8	3.2	2.05	4.2	1.85	2.35
30	1.8	2.95	2.4	3.5	-------	5.2	3.5	3.3	2.3	3.8	1.7	2.2
31	1.75	-------	2.4	3.4	-------	5.4	-------	3.1	-------	3.4	1.7	-------

Note—Stage-discharge relation Dec. 10 to Feb. 19 affected by ice.

Daily Discharge, in second-feet, of Delaware River at Port Jervis, N. Y., for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	73,900	880	2,800	1,800	1,100	12,800	11,800	4,320	3,260	1,540	4,040	940
2	46,800	880	2,470	1,700	1,100	11,800	11,400	6,190	3,510	1,700	3,770	835
3	20,500	880	1,800	1,700	1,100	9,190	10,500	5,800	3,770	1,700	3,260	788
4	13,100	780	1,720	1,600	1,000	7,990	10,000	5,540	3,770	1,700	2,790	740
5	9,010	780	1,980	1,600	1,000	7,240	10,000	5,220	2,900	1,700	2,360	740
6	7,430	732	1,980	1,600	1,000	6,530	9,190	4,910	2,460	3,770	2,360	740
7	6,010	780	2,980	1,600	1,100	7,610	7,990	4,610	2,160	2,900	2,200	1,110
8	5,050	685	3,400	1,500	1,100	7,990	7,610	4,320	1,880	1,880	2,360	1,620
9	4,460	685	4,750	1,500	1,200	7,610	6,530	3,770	1,880	2,260	2,060	1,620
10	3,910	685	4,800	1,500	1,800	7,990	6,530	3,510	3,200	2,160	4,320	1,620
11	3,160	635	3,400	1,400	7,000	7,610	6,190	3,770	2,360	1,880	5,220	1,540
12	3,160	732	3,400	1,400	80,000	9,190	5,540	7,240	2,160	3,510	4,040	1,170
13	2,580	732	3,200	1,400	46,000	8,780	5,220	8,380	1,970	2,400	3,020	1,540
14	2,260	685	3,200	1,300	24,000	7,990	4,910	6,530	1,790	1,880	4,040	4,320
15	2,070	732	2,000	1,300	16,000	9,610	5,220	5,860	1,620	1,380	4,610	15,000
16	2,070	685	2,400	1,300	15,000	8,780	5,540	5,860	1,620	1,240	4,320	10,900
17	1,890	685	2,600	1,300	13,000	8,780	5,220	5,220	1,620	1,460	3,260	13,200
18	1,800	600	3,400	1,200	11,000	9,190	4,910	5,860	1,540	2,790	2,680	8,380
19	1,720	562	6,000	1,200	9,000	10,500	4,610	5,220	1,460	2,680	2,360	6,530
20	1,390	525	6,000	1,100	8,380	11,800	6,190	4,610	1,240	1,880	2,060	5,540
21	1,390	732	4,800	1,100	7,990	10,000	8,380	4,040	1,170	1,540	1,970	4,040
22	1,240	880	3,400	1,100	7,610	8,780	8,780	3,510	1,110	1,790	1,970	3,620
23	1,390	4,750	3,200	1,100	12,800	7,990	7,990	3,140	1,110	7,610	1,790	2,900
24	1,240	11,500	3,000	1,000	19,900	7,610	6,880	3,510	940	7,240	1,790	2,790
25	1,240	6,700	2,800	1,000	19,900	6,190	6,190	4,320	995	5,540	1,620	2,570
26	1,240	5,050	2,400	1,000	16,900	5,860	6,880	5,540	1,540	4,040	1,460	2,460
27	1,180	3,910	2,200	1,100	14,200	5,220	7,240	5,220	1,460	13,700	1,460	2,160
28	1,050	3,650	1,960	1,000	13,700	6,530	6,190	4,610	1,380	9,190	1,240	1,970
29	990	3,160	1,800	1,000	-------	13,700	5,540	3,770	1,380	6,880	1,110	1,880
30	990	3,040	1,800	1,000	-------	10,900	4,610	4,040	1,790	5,540	940	1,620
31	935	-------	1,800	1,100	-------	11,800	-------	3,510	-------	4,320	940	-------

Note—Discharge Dec. 10 to Feb. 19, determined from gage heights corrected for ice effect.

Monthly discharge of Delaware River at Port Jervis, N. Y., for the year ending September 30, 1925.

(Drainage area 3,070 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	73,900	935	7,260	2.36	2.72
November	11,600	525	1,930	.629	.70
December	6,000	1,720	3,020	.984	1.13
January	1,800	1,000	1,500	.423	.49
February	80,900	1,000	12,600	4.10	4.27
March	13,700	5,220	8,820	2.87	3.31
April	11,800	4,610	7,160	2.33	2.60
May	8,380	3,140	4,900	1.60	1.84
June	3,770	940	1,970	.642	.72
July	13,700	1,240	3,540	1.15	1.33
August	5,220	940	2,630	.857	.99
September	15,300	740	3,490	1.14	1.27
The Year	80,000	525	4,840	1.58	21.37

DELAWARE BASIN—STATION NO. 5

BUSHKILL CREEK NEAR SHOEMAKERS

Location.—At single-span steel highway bridge, about three-quarters of a mile northwest of Shoemakers, Monroe County.

Drainage Area.—115 square miles.

Records Available.—September 19, 1908, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by Walter C. Haywood.

Discharge Measurements.—Made from upstream side of bridge or by wading.

Channel and Control.—Banks are high and not subject to overflow. Bed is composed of gravel and boulders. Control is at the first of a series of riffles, a short distance downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 5.5 feet at midnight September 30-October 1, 1924, when the stream was falling (discharge, about 1,790 second-feet); a crest stage of 4.09 feet was observed at 8 a. m. February 12 (discharge, about 1,160 second-feet); minimum, 1.16 feet at 5 p. m. September 30 (discharge, 32 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 20 and 300 second-feet and fairly well defined from 300 to 800 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for medium and high stages when they are fair.

Discharge measurements of Bushkill Creek near Shoemakers, during the year ending September 30, 1925.

No.	Date	Made by	Gage Height	Discharge
			Feet	Sec. ft.
42	May 14	H. J. McIntyre	2.18	270
43	July 1	do	1.78	133
44	1	do	1.77	132

Daily Mean Gage Height, in feet, of Bushkill Creek near Shoemakers, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.86	1.51	1.84	2.44	2.32	2.56	2.32	1.91	2.08	1.75	2.00	1.33
2	3.80	1.47	1.90	2.37	2.33	2.65	2.29	1.95	2.40	1.73	1.90	1.30
3	3.20	1.45	1.93	2.24	2.36	2.69	2.25	1.97	2.38	1.62	1.80	1.28
4	2.88	1.45	1.88	2.17	2.37	2.67	2.19	1.97	2.26	1.58	1.74	1.28
5	2.66	1.45	1.84	2.16	2.31	2.59	2.18	1.95	2.12	1.70	1.70	1.26
6	2.48	1.45	2.24	2.11	2.31	2.56	2.15	1.92	1.97	1.78	1.73	1.29
7	2.38	1.45	2.22	2.12	2.30	2.55	2.11	1.89	1.93	1.72	1.71	1.56
8	2.31	1.44	2.27	2.16	2.32	2.53	2.09	1.84	1.86	1.64	1.65	1.54
9	2.18	1.40	2.48	2.16	2.39	2.49	2.09	1.81	1.89	1.79	2.10	1.44
10	2.10	1.40	2.40	2.16	2.59	2.44	2.07	1.78	2.38	1.68	2.22	1.38
11	2.03	1.40	2.28	2.18	3.25	2.43	2.08	2.15	2.18	1.62	2.27	1.36
12	1.94	1.40	2.24	2.18	4.03	2.55	2.03	2.39	2.01	1.51	2.16	1.46
13	1.88	1.46	2.22	2.16	3.52	2.49	1.97	2.27	1.83	1.44	2.07	1.68
14	1.82	1.40	2.20	2.17	3.41	2.43	1.92	2.18	1.73	1.36	2.32	1.86
15	1.80	1.40	2.16	2.19	3.34	2.35	2.15	2.18	1.81	1.32	2.12	1.72
16	1.76	1.38	2.16	2.24	3.27	2.28	2.11	2.14	1.92	1.22	1.93	1.64
17	1.75	1.38	2.15	2.27	3.09	2.28	2.05	2.16	1.90	1.60	1.84	1.62
18	1.70	1.38	2.18	2.24	2.97	2.31	2.02	2.09	1.83	1.50	1.76	1.55
19	1.67	1.40	2.15	2.16	2.85	2.65	2.00	2.00	1.69	1.44	1.72	1.50
20	1.66	1.45	2.13	2.18	2.74	2.64	1.99	2.01	1.67	1.37	1.62	1.44
21	1.63	1.46	2.04	2.24	2.71	2.55	1.97	2.00	1.63	1.49	1.64	1.40
22	1.62	1.90	2.00	2.25	2.69	2.47	1.97	1.98	1.56	2.16	1.74	1.37
23	1.60	2.62	2.02	2.25	2.81	2.40	1.97	1.96	1.53	2.37	1.59	1.33
24	1.58	2.42	2.12	2.23	2.95	2.36	1.95	2.16	1.53	2.23	1.56	1.30
25	1.55	2.21	2.17	2.24	3.01	2.31	1.92	2.50	1.69	1.85	1.53	1.28
26	1.55	2.10	2.34	2.25	2.98	2.27	1.98	2.46	1.74	1.96	1.48	1.25
27	1.55	2.02	2.64	2.26	3.09	2.32	1.97	2.36	1.62	1.80	1.42	1.20
28	1.55	1.95	2.74	2.27	2.75	2.47	1.95	2.30	1.52	1.82	1.40	1.20
29	1.55	1.93	2.74	2.28	------	2.48	1.95	2.27	1.84	1.80	1.36	1.19
30	1.55	1.80	2.64	2.31	------	2.44	1.92	2.22	1.92	1.72	1.33	1.17
31	1.54	------	2.50	2.35	------	2.37	------	2.16	------	1.84	1.33	------

Note—Stage-discharge relation Dec. 23 to Feb. 10 affected by ice.

Daily discharge, in second-feet of Bushkill Creek near Shoemakers, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,520	70	138	95	85	429	325	159	222	114	190	47
2	1,020	64	155	109	85	476	312	172	360	109	155	44
3	734	62	166	109	90	499	294	180	351	87	126	42
4	593	62	149	100	90	476	268	180	298	80	112	42
5	476	62	135	100	90	452	264	172	238	102	102	40
6	397	62	290	100	90	429	251	162	180	121	109	43
7	351	62	281	100	100	429	234	152	166	107	104	77
8	320	60	303	90	100	429	225	138	143	91	92	74
9	264	55	397	85	120	401	226	339	126	124	230	60
10	235	55	300	85	210	378	218	321	351	98	281	53
11	194	55	307	85	734	374	222	251	264	87	303	51
12	169	55	290	85	1,110	429	202	356	194	70	255	63
13	149	55	281	80	875	401	180	303	135	60	218	98
14	132	55	272	80	828	374	162	264	109	51	325	143
15	126	55	255	90	781	338	251	261	129	46	238	107
16	116	53	255	85	781	307	234	247	162	97	166	91
17	114	53	251	85	687	307	220	255	155	83	138	87
18	102	53	264	85	616	406	198	190	135	68	116	76
19	96	55	251	85	570	476	190	190	100	60	107	68
20	94	62	243	85	522	476	186	194	96	52	87	60
21	89	63	206	85	499	429	180	190	89	67	91	55
22	87	155	190	80	499	392	180	183	77	255	112	52
23	85	452	160	75	546	360	180	176	72	347	82	47
24	80	369	160	70	616	342	172	255	72	285	77	44
25	76	290	170	70	640	320	162	406	100	140	72	42
26	76	230	190	70	640	303	183	388	112	155	65	40
27	76	198	130	70	687	325	186	342	87	152	58	35
28	76	172	110	70	522	392	172	316	71	132	55	35
29	76	166	100	70		397	172	303	138	126	51	34
30	76	152	100	75	-------	378	162	281	162	107	47	33
31	74	-------	95	80	-------	347	-------	255	-------	138	47	-------

Note.—Discharge Dec. 23 to Feb. 10 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for McMichaels Creek near Stroudsburg and Lehigh River at Tannery.

Monthly discharge of Bushkill Creek near Shoemakers, for the year ending September 30, 1925.

(Drainage area 115 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet Per square mile	Depth in inches
October	1,520	74	260	2.26	2.61
November	452	53	114	.991	1.11
December,	397	95	214	1.86	2.14
January	100	70	84.0	.730	.84
February	1,110	85	472	4.10	4.27
March	499	303	396	3.44	3.97
April	325	162	213	1.85	2.06
May	406	121	231	2.01	2.32
June	360	71	163	1.42	1.58
July,	347	57	115	1.00	1.15
August	325	47	136	1.18	1.36
September	143	33	59.4	.517	.58
The Year	1,520	33	203	1.77	23.99

DELAWARE BASIN—STATION NO. 6

McMICHAELS CREEK NEAR STROUDSBURG

Location.—At single-span steel railroad bridge, Wilkes-Barre & Eastern R. R. car shops, about three-quarters of a mile southwest of Stroudsburg, Monroe County.

Drainage Area.—62 square miles.

Records Available.—August 10, 1911, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by H. Q. Snyder.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of silt and stones. Control for medium and low stages is at a gravel and boulder bar, where the stream has a pronounced fall, about 600 feet downstream from the gage; practically permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 6.6 feet at midnight September 30-October 1, 1924, when the stream was falling (discharge, about 1,510 second-feet); a crest stage of 6.0 feet, estimated from hydrograph, was reached at 7 a. m. March 19 (discharge, about 1,160 second-feet); minimum, 2.72 feet at 4.20 p.m. September 30 (discharge, 32 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 25 and 300 second-feet and fairly well defined from 300 to 800 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for medium and high stages when they are fair.

Discharge measurements of McMichaels Creek near Stroudsburg, during the year ending September 30, 1925.

No.	Date	Made by	Height Gage	Discharge
			Feet	Sec. ft.
43	Nov. 8	C. K. Weigle	2.95	50.0
44	May 14a	J. M. Snavely	3.10	74.0
45	14a	do	3.10	76.4
46	July 1b	do	2.84	33.2
47	1b	do	2.82	34.4

aMeasurement made by wading 300 feet upstream from gage.
bMeasurement made by wading 150 feet upstream from gage.

Daily Mean Gage Height, in feet, of McMichaels Creek near Stroudsburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.73	2.92	3.07	2.97			3.47	3.08	3.04	2.86	3.20	2.90
2	4.70		3.17	2.95	3.01	4.23	3.39	3.08	3.02	2.90		2.90
3	4.14	2.94	3.17	2.94	3.00	4.05	3.33		3 04	2.82	3.19	2.88
4	3.93	2.91	3.07		3.00	3.87	3.27	3.06	3.00		3.20	2.90
5	3.75	2.94	3.06	3.00	3.00	3.85		3.04	2.98	2.94	3.22	2.90
6	3.63	2.94	3.53	2.98	2.97	3.85	3.27	3.02	2.96	2.84	3.16	
7	3.59	2.94		2.99	2.96	3.79	3.25	3.00		2.84	3.09	3.30
8	3.56	2.94	3.57	3.00			3.23	3.00	2.97	2.96	3.04	2.96
9	3.45		3.61	2.98	2.99	3.69	3.20	3.00	2.95	3.02		2.92
10	3.41	2.88	3.45	2.96	3.40	3.69	3.19		2.93	2.95	3.27	2.93
11	3.31	2.87	3.37		4.24	3.69	3.23	3.16	2.94	2.90	3.14	3.04
12		2.88	3.33	2.94	5.56	4.09		3.20	2.90		3.06	3.04
13	3.15	2.93	3.43	2.92	5.04	3.96	3.21	3.19	2.92	2.86	3.08	
14	3.12	2.93		2.88	4.64	3.90	3.23			2.84	3.36	3.02
15	3.18	2.89	3.28	2 85			3.50	3.16	2.91	2.80	3.17	3.02
16	3.21		3.27	2.85	4.46	3.78	3.25	3.08	3.04	2.80		2.96
17	3.17	2.85	3.25	3.01	4.30	3.73	3.17		2.92	2.84	3.16	2.90
18	3.14	2.83	3.26		4.17	3.83	3.15	3.12	2.90	2.86	3.09	2.86
19	3.13	2.83	3.25	2.97	4.20	5.43		3.12	2.88		3.05	2.84
20	3.15	2.83	3.23	2.96	4.18	4.34	3.20	3.09	2.84	2.81	3.04	
21	3.19	2.82		2.98	4.19	3.99	3.14	3.04		2.82	2.97	2.82
22	3.14	3.29	3.17	2.98			3.10	3.00	2.83	3.02	2.92	2.80
23	3.08	3.32	3.16	2.99	4.44	3.89	3.08	3.00	2.88	5.24		2.78
24	3.02	3.21	3.11	2.99	4.36	3.75	3.07			2.98	2.92	2.76
25	2.98	3.17	3.09		4.29	3.67	3.10	3.49	2.90	3.06	2.97	2.76
26		2.98	3.06	2.99	4.27	3.61		3.34	2.94		2.95	2.78
27	2.97	2.98	3.07	2.98	4.24	3.63	3.10	3.22	2.85	3.16	2.94	
28	2.96	2.95		3.00	4.16	3.62	3.08	3.12		3.10	2.92	2.78
29	2.94	2.90	2.97	3.00		3.59	3.07	3.05	3.00	3.12	2.92	2.74
30	2.94		2.98	3.01	-------	3.53	3.08	3.03	2.92	3.02		2.73
31	2.92	-------	2.97	3.01	-------	3.51	-------		-------	3.09	2.90	-------

Note.—Gage height not observed on days of no record. Stage-discharge relation Jan. 17 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of McMichaels Creek near Stroudsburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,000	50	67	56	38	344	132	69	64	44	85	48
2	538	51	81	54	40	362	117	69	61	48	85	48
3	325	52	81	52	42	290	106	68	64	40	84	46
4	256	49	67	56	42	226	96	66	59	46	85	48
5	198	52	66	59	44	226	96	64	57	52	88	48
6	173	52	150	57	44	226	96	61	55	42	79	59
7	161	52	150	58	44	211	93	59	56	42	70	161
8	150	52	150	59	48	198	90	59	56	55	64	55
9	129	49	161	57	58	185	85	59	54	61	80	50
10	121	46	129	55	119	185	84	69	51	54	96	51
11	103	45	114	54	362	185	90	79	52	48	77	64
12	90	46	117	52	952	307	88	85	48	46	66	64
13	78	51	125	50	667	256	87	84	50	44	69	62
14	74	51	112	46	497	240	90	82	50	42	112	61
15	82	47	98	43	468	226	139	79	49	38	81	61
16	87	45	96	43	438	211	93	69	64	38	80	55
17	81	43	93	42	380	198	81	72	50	42	79	48
18	77	41	95	40	325	226	78	74	48	44	70	44
19	75	41	93	38	343	853	82	74	46	42	65	42
20	78	41	90	38	343	399	85	70	42	39	64	41
21	84	40	86	36	343	272	77	64	42	40	56	40
22	77	99	81	35	390	256	71	59	41	61	50	38
23	69	105	79	34	438	240	69	59	46	91	50	36
24	61	87	72	34	399	198	67	71	47	57	50	35
25	57	81	70	32	380	173	71	137	48	66	56	35
26	56	57	66	32	362	161	71	108	52	72	54	36
27	56	57	67	34	362	173	71	88	48	79	52	36
28	55	54	62	34	325	161	69	74	51	71	50	36
29	52	58	56	34		161	67	65	59	74	50	33
30	52	62	57	36	-------	150	69	63	50	61	49	32
31	50	-------	56	36	-------	139	-------	64	-------	70	48	-------

Note.—Discharge Oct. 12, 26, Nov. 2, 9, 16, 30, Dec. 7, 14, 21, 28, Jan. 4, 11, Feb. 15, 22, Mar. 1, 8, 15, 22, Apr. 5, 12, 19, 26, May 3, 10, 14, 17, 24, 31, June 7, 14, 21, 24, 28, July 4, 12, 19, 26, Aug. 2, 9, 16, 23, 30, Sept. 6, 13, 20 and 27 estimated, because of no gage height record, from weather records, study of gage height graph and comparison with discharge at other stations. Discharge Jan. 17 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Bushkill Creek near Shoemakers and Lehigh River at Tannery.

Monthly discharge of McMichaels Creek near Stroudsburg, for the year ending September 30, 1925.

(Drainage area 62 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	1,000	50	147	2.37	2.73
November,	105	40	55.2	.890	.99
December	161	56	93.1	1.50	1.73
January	59	32	44.7	.721	.83
February	952	38	276	4.45	4.63
March	853	139	246	3.97	4.58
April	139	67	87.0	1.40	1.56
May	137	59	73.0	1.18	1.36
June	64	41	51.8	.835	.93
July	91	38	53.2	.858	.99
August	112	48	69.2	1.12	1.29
September	101	32	48.4	.781	.87
The Year	1,000	32	104	1.68	22.49

DELAWARE BASIN—STATION NO. 7

DELAWARE RIVER AT BELVIDERE, N. J.

Location.—At Belvidere, Warren County, just below mouth of Pequest River.

Drainage Area.—4,540 square miles.

Records Available.—October 27, 1922, to September 30, 1925.

Gage.—Inclined staff on left bank bolted to downstream side of storm sewer outlet at foot of Second Street, Belvidere; read by Alexander Rush.

Discharge Measurements.—Made by boat 1,000 feet below gage for low water and from highway bridge one-half mile upstream during high water. Pequest River measured separately when highway bridge is used.

Channel and Control.—Channel is heavy gravel and boulders. Control is ledge and boulders about three-quarters of a mile below gage known as Little Foul Rift.

Extremes of Discharge.—Maximum stage during year determined from high water mark, 19.3 feet at 2.00 p.m. October 1 (discharge, 118,000 second-feet); minimum stage recorded, 2.77 feet at 6.00 p.m. November 21 (discharge, 1,170 second-feet).

1922-1925: Maximum stage 19.3 feet at 2.00 p. m. on October 1, 1924, determined by levels from high water mark (discharge, 118,000 second-feet); minimum stage recorded, 2.45 feet in July and August 1923 (discharge, 895 second-feet).

Ice.—Stage-discharge relation affected by ice during extremely cold periods.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 900 and 60,000 second-feet. Gage read to half-tenths twice daily. Daily discharge ascertained by applying mean daily gage height to rating table except when affected by ice. Results good.

Cooperation.—Record furnished by United States Geological Survey Office, Trenton, N. J.

Discharge measurements of Delaware River at Belvidere, N. J., during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
9	Sept. 23a	Otto Lauterhahn	4.55	4,570
10	24b	do	4.29	3,850

a Discharge measured from boat downstream from mouth of Pequest River.
b Discharge measured from highway bridge on the main stream and upstream from mouth on the Pequest River.

Daily discharge, in second-feet, of Delaware River at Belvidere, N. J., for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21,000	1,700	3,600	2,940	2,360	13,700	15,500	6,620	5,120	2,940	6,620	1,500
2	66,000	1,700	3,600	2,740	2,270	14,600	15,000	7,610	5,120	2,940	5,990	1,430
3	26,800	1,700	2,940	2,550	2,130	12,800	14,100	7,610	5,400	2,550	5,120	1,310
4	18,900	1,630	2,940	2,940	2,010	11,900	13,200	6,940	4,850	2,270	4,580	1,310
5	13,700	1,630	2,940	3,150	2,100	10,600	12,800	6,620	4,850	2,180	3,830	1,370
6	10,600	1,560	3,830	2,940	2,100	10,200	11,900	6,300	4,070	2,550	3,600	1,370
7	9,050	1,560	4,580	2,800	2,180	10,600	10,600	5,990	3,600	3,830	3,600	1,500
8	7,610	1,560	5,120	2,600	2,270	11,400	9,810	5,600	3,150	3,150	3,370	1,850
9	6,620	1,500	6,940	2,600	2,740	11,900	8,680	5,400	2,740	2,940	3,600	2,360
10	5,990	1,560	7,610	2,400	2,370	11,900	7,960	5,120	3,830	3,150	4,580	2,570
11	5,400	1,430	7,610	2,460	6,940	11,400	7,960	5,690	4,070	2,740	5,990	2,360
12	4,850	1,370	6,300	2,400	96,000	11,400	7,610	8,320	3,600	3,150	5,600	2,010
13	4,070	1,370	5,990	2,200	68,000	13,200	7,610	11,000	2,940	3,830	4,850	2,360
14	3,830	1,370	5,690	2,200	38,400	12,800	7,270	9,430	2,460	2,940	4,850	3,150
15	3,600	1,370	4,850	2,200	25,600	12,700	6,940	8,680	2,550	2,740	5,990	15,000
16	3,370	1,370	4,580	2,180	26,200	13,200	7,960	7,960	2,740	2,100	5,690	11,900
17	3,370	1,430	4,320	2,270	22,700	12,300	7,960	7,960	2,740	2,270	4,850	13,700
18	3,150	1,500	4,580	2,270	18,900	12,300	7,610	7,610	2,460	1,980	4,070	10,200
19	2,940	1,310	6,940	2,180	15,900	15,000	6,940	7,270	2,270	3,150	3,600	7,960
20	2,740	1,200	7,960	2,100	14,700	17,900	6,940	6,620	2,180	2,740	3,370	6,620
21	2,740	1,200	7,270	2,100	13,200	15,900	12,800	5,690	1,850	2,460	2,940	5,400
22	2,550	1,700	4,580	1,900	13,700	13,700	11,400	5,400	1,850	2,360	2,940	4,580
23	2,550	4,070	3,150	1,800	16,400	11,900	9,810	4,850	1,630	4,320	2,740	4,320
24	2,360	11,900	3,600	1,800	21,600	10,600	8,680	5,120	1,500	10,700	2,550	3,830
25	2,180	9,810	4,070	1,800	28,100	9,430	7,960	6,940	1,930	6,620	2,360	3,370
26	2,010	6,940	3,600	2,360	25,000	8,680	7,610	8,680	2,010	5,400	2,180	2,940
27	1,930	5,990	3,400	2,550	21,600	7,960	7,960	7,960	2,100	6,620	2,010	2,740
28	1,930	4,850	3,200	2,200	15,900	9,810	7,960	6,620	2,180	12,900	1,850	2,550
29	1,850	4,320	3,000	1,800	-------	13,700	6,940	6,300	2,270	8,680	1,700	2,550
30	1,850	3,830	2,940	1,800	-------	16,400	6,300	5,690	2,550	6,940	1,630	2,360
31	1,780	-------	3,600	2,000	-------	15,000	-------	5,400	-------	6,300	1,560	-------

Note.—Stage discharge relation was affected by ice Dec. 26-29, Jan. 7-10, 12-15, 22-25 and 28-31; discharge estimated by study of weather records, gage height graph and comparison with flow at Riegelsville. Discharge estimated Sept. 13.

Monthly discharge of Delaware River at Belvidere, N. J., for the year ending September 30, 1925.
(Drainage area 4,540 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	91,000	1,780	10,400	2.29	2.64
November	11,900	1,200	2,810	.619	.69
December	7,960	2,940	4,690	1.03	1.19
January	3,150	1,800	2,330	.513	.59
February	96,000	2,010	18,300	4.03	4.20
March	17,900	7,960	12,400	2.73	3.15
April	15,500	6,300	9,390	2.07	2.31
May	11,000	5,120	6,870	1.51	1.74
June	5,400	1,500	3,020	.665	.74
July	12,300	1,930	4,140	.912	1.05
August	6,620	1,560	3,820	.841	.97
September	15,000	1,310	4,220	.929	1.04
The Year	96,000	1,200	6,790	1.50	20.31

DELAWARE BASIN—STATION NO. 8

LEHIGH RIVER AT TANNERY

Location.—At single-span steel highway bridge, Tannery, Carbon County.

Drainage Area.—335 square miles.

Records Available.—June 23, 1914, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by G. D. Heimbach. Elevation of gage zero 1,029.41 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of gravel and large stones. Control is at a riffle about 300 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 13.0 feet at midnight September 30-October 1, 1924, when the stream was falling (discharge, about 25,500 second-feet); a crest stage of 9.1 feet, estimated from hydrograph, was reached at 5 a.m. February 12 (discharge, about 9,470 second-feet); minimum, 2.36 feet at 8 a.m. September 6 (discharge, 92 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 130 and 1,000 second-feet and fairly well defined from 1,000 to 3,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for extreme stages when they are fair.

The following discharge measurement was made by J. M. Snavely: No. 27, May 19: Gage height, 4.42 feet; discharge 1,030 second-feet.

Daily Mean Gage Height, in feet, of Lehigh River at Tannery, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10.43	2.72	3.32	3.88	4.28	4.58	4.39	3.72	3.96	3.29	3.76	2.65
2	7.20	2.69	3.18	3.75	3.98	4.79	4.49	3.60	4.08	3.22	3.62	2.66
3	5.88	2.82	3.15	3.64	3.88	3.95	4.46	3.50	3.98	3.02	3.38	2.66
4	5.25	2.77	3.21	3.62	3.46	4.02	4.48	3.48	3.85	2.81	3.19	2.64
5	4.62	2.73	3.22	3.59	3.54	4.12	4.42	3.46	3.75	3.09	3.18	2.59
6	4.60	2.69	3.68	3.36	3.38	4.18	4.32	3.42	3.52	3.07	3.18	2.40
7	4.54	2.71	3.74	3.34	3.25	4.28	4.28	3.35	3.38	3.01	3.13	2.88
8	4.41	2.68	3.75	3.29	3.19	4.28	4.12	3.29	3.30	3.22	3.09	2.96
9	4.19	2.50	3.81	3.54	3.65	4.31	4.05	3.25	3.25	3.48	3.42	2.78
10	4.02	2.79	3.72	3.34	5.00	4.30	3.96	3.16	3.27	3.22	4.04	2.79
11	3.96	2.73	3.64	3.31	7.02	4.31	3.94	4.15	3.25	3.18	3.68	2.76
12	3.91	2.71	3.58	3.22	8.55	4.81	3.84	5.02	3.18	2.92	3.32	2.68
13	3.82	2.66	3.56	3.21	6.92	4.71	3.74	4.70	3.16	2.94	3.59	2.58
14	3.72	2.66	3.52	3.22	6.45	4.61	3.70	4.52	2.94	2.85	3.70	3.09
15	3.69	2.66	3.42	3.89	5.75	4.60	3.95	4.39	3.11	2.71	3.71	3.04
16	3.62	2.46	3.47	3.76	5.79	4.32	4.02	4.41	3.11	2.76	3.55	2.98
17	3.52	2.66	3.56	3.65	5.60	4.25	3.94	4.88	3.16	2.38	3.42	2.91
18	3.48	2.41	3.82	3.38	5.10	4.44	3.72	4.78	3.17	3.21	3.36	2.88
19	2.95	2.55	3.91	3.31	4.90	4.65	3.78	4.51	3.10	2.82	3.28	2.72
20	3.01	2.64	3.82	3.31	4.78	4.71	3.92	4.58	2.96	2.89	3.17	2.69
21	2.96	2.64	3.55	3.29	4.59	4.68	3.82	4.20	2.78	2.85	3.13	2.82
22	2.93	3.45	3.39	3.30	4.68	4.58	4.08	4.04	3.09	3.35	3.15	2.76
23	2.95	4.68	3.34	3.52	5.28	4.45	3.95	3.88	2.93	3.70	2.99	2.69
24	2.84	4.64	3.60	4.08	5.64	4.36	3.88	4.60	2.87	2.34	3.06	2.62
25	2.86	4.55	5.62	4.05	5.59	4.29	3.62	5.35	2.81	3.15	3.01	2.56
26	2.91	4.35	3.39	3.58	5.48	4.12	3.82	4.93	2.97	3.62	2.92	2.54
27	2.89	3.95	3.62	3.52	4.70	4.06	3.88	4.55	3.02	3.78	2.87	2.48
28	2.85	3.65	3.76	4.20	4.59	4.38	3.87	4.40	2.88	3.42	2.82	2.70
29	2.79	3.52	4.09	4.53	------	4.61	3.60	4.36	3.22	3.64	2.70	2.89
30	2.75	3.34	4.11	4.48	------	4.54	3.58	4.18	3.40	3.45	2.52	2.76
31	2.73	------	4.11	4.36	------	4.38	------	4.02	------	3.29	2.65	------

Note.—Stage-discharge relation Dec. 21 to Feb. 10 affected by ice.

Daily discharge, in second-feet, of Lehigh River at Tannery, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13,700	134	302	200	170	1,180	1,000	485	645	292	515	122
2	4,990	128	253	200	170	1,280	1,090	430	750	267	430	124
3	2,750	154	242	200	170	645	1,040	380	680	197	327	124
4	1,830	144	264	200	180	680	1,090	371	578	152	256	121
5	1,180	136	267	220	190	750	1,000	362	515	222	253	114
6	1,180	128	485	220	190	830	910	344	380	214	253	95
7	1,090	132	515	200	200	910	910	315	327	194	236	103
8	1,000	127	515	190	200	910	750	292	295	267	222	182
9	830	105	545	180	260	910	715	278	278	371	344	146
10	680	148	485	180	750	910	645	246	284	267	715	148
11	645	136	457	170	4,600	910	645	790	278	253	485	142
12	610	132	430	170	8,150	1,389	578	1,600	253	174	302	127
13	545	124	405	170	4,410	1,280	515	1,280	232	178	292	113
14	485	124	380	180	3,530	1,180	485	1,090	178	160	485	222
15	485	124	344	180	2,630	1,180	645	1,000	228	132	485	204
16	430	101	366	180	2,470	910	680	1,040	228	130	405	186
17	380	124	405	180	2,330	955	645	1,490	246	327	344	172
18	371	96	545	190	1,710	1,040	485	1,380	250	264	319	166
19	180	110	610	190	1,600	1,180	545	1,090	224	154	288	134
20	194	121	545	200	1,380	1,280	610	1,000	182	168	250	118
21	182	121	380	190	1,180	1,280	545	830	146	160	236	154
22	176	353	220	170	1,280	1,180	750	715	222	315	242	142
23	180	1,280	200	160	1,950	1,040	645	610	176	485	188	128
24	158	1,180	260	150	2,330	955	610	1,180	164	311	211	118
25	162	1,180	280	140	2,330	910	430	2,070	152	242	194	111
26	172	955	220	140	2,200	750	545	1,600	184	430	174	109
27	168	645	200	140	1,280	715	610	1,180	197	545	164	102
28	160	457	220	150	1,180	1,000	578	1,000	166	344	151	150
29	148	380	220	150	------	1,180	430	955	267	457	130	168
30	140	311	260	160	------	1,090	480	830	325	358	107	142
31	136	------	240	160	------	1,000	------	680	------	292	122	------

Note.—Discharge Dec. 21 to Feb. 10 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Lehigh River at Bethlehem and Lackawanna River at Moosic.

Monthly discharge of Lehigh River at Tannery, for the year ending September 30, 1925.

(Drainage area 335 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	13,700	136	1,140	3.40	3.92
November	1,280	96	313	.934	1.04
December	610	200	355	1.06	1.22
January	220	140	178	.531	.61
February	8,150	170	1,750	5.22	5.44
March	1,380	645	1,010	3.01	3.47
April	1,090	430	685	2.04	2.28
May	2,070	246	868	2.59	2.99
June	750	146	301	.899	1.00
July	545	130	268	.800	.92
August	715	107	294	.878	1.01
September	222	95	141	.421	.47
The Year	13,700	95	602	1.80	24.37

DELAWARE BASIN—STATION NO. 9

LITTLE LEHIGH CREEK AT ALLENTOWN

Location.—At four-span concrete highway bridge, Lehigh Street, Allentown, Lehigh County, about 2,500 feet upstream from the confluence of Little Lehigh and Jordan Creeks.

Drainage Area.—106 square miles.

Records Available.—April 29, 1921, to September 30, 1925.

Gage.—Staff attached to downstream end of left pier; read to hundredths twice daily by Nelson Schantz; during high stages more frequently.

Discharge Measurements.—Made from downstream side of trolley bridge, which is just downstream from the gage, or by wading.

Channel and Control.—Channel is confined by retaining walls and brick buildings. Bed is composed of small gravel. Control is at a riffle a short distance downstream from gage, where the bed is composed of sand and gravel deposited July 20, 1921; shifts occasionally.

Extremes of Stage.—Maximum gage height during the year, estimated from hydrograph, 8.2 feet at midnight September 30-October 1, 1924, when the stream was falling; a crest stage of 8.2 feet, estimated from hydrograph, was reached at 5 a.m. February 12; minimum 0.72 foot at 9 a.m. February 3.

Ice.—Stage-discharge relation not affected by ice since the establishment of station.

Cooperation.—Station is maintained in cooperation with the American Steel and Wire Company, Allentown, Pa.

Discharge measurements of Little Lehigh Creek at Allentown, during the year ending September 30, 1925.

No.	Date	Made by	Gage Height	Discharge
			Feet	Sec. ft.
14	May 13	J. M. Snavely	1.07	112
15	13a	do	1.08	116

aMeasurement made by wading at gage.

Daily Mean Gage Height in feet, of Little Lehigh Creek at Allentown, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.92	0.90	0.90	0.82	0.79	1.78	1.21	1.09	1.00	0.91	2.18	0.99
2	2.30	.86	.81	.82	.83	1.92	1.24	1.09	.95	.90	1.29	.98
3	1.10	.95	.88	.83	.76	1.45	1.28	1.06	.96	.91	1.16	.97
4	.99	.87	.85	.83	.81	1.46	1.23	1.09	.96	.89	1.11	.98
5	.97	.89	.90	.86	.78	1.45	1.15	1.02	.95	.98	1.10	1.00
6	1.00	.85	1.19	.84	.78	1.46	1.18	1.02	.96	.93	1.06	.90
7	.92	.86	.96	.80	.78	1.51	1.15	1.05	.85	.90	1.10	1.05
8	.97	.91	.96	.84	.75	1.49	1.13	1.02	.90	.92	1.10	1.05
9	.94	.88	1.05	.83	.83	1.48	1.11	1.04	1.00	.90	1.33	.98
10	.93	.90	.96	.80	.95	1.40	1.14	1.00	1.00	.95	1.30	.92
11	.91	.86	.92	.77	3.09	1.40	1.22	1.16	.90	1.00	1.10	.95
12	.90	.94	.92	.80	6.85	1.48	1.13	1.32	.90	.90	1.07	.94
13	.95	.88	.89	.84	2.90	1.36	1.15	1.10	.91	.93	1.10	.95
14	.94	.91	.86	.79	1.68	1.39	1.12	1.06	.88	.90	1.06	1.15
15	.90	.90	.82	.80	1.51	1.32	1.55	1.05	.92	.88	1.08	1.02
16	.92	.81	.88	.82	1.86	1.25	1.22	1.06	1.02	.88	1.04	1.22
17	.93	.98	.86	.83	2.08	1.34	1.12	1.05	.90	.90	1.04	1.18
18	.95	.87	.87	.79	1.65	1.37	1.13	1.05	.93	.89	1.04	1.08
19	.87	.85	.89	.80	1.56	1.75	1.16	1.05	.90	.88	1.02	1.01
20	.95	.89	.91	.82	1.68	1.56	1.25	1.01	.91	.90	1.02	.96
21	.91	.87	.79	.80	1.85	1.37	1.15	1.00	.90	.92	1.06	1.01
22	.90	1.15	.86	.82	2.17	1.30	1.10	1.00	.93	1.00	1.02	.97
23	.87	1.13	.83	.76	2.60	1.25	1.10	.96	.90	1.00	1.00	.95
24	.91	.97	.96	.83	2.73	1.24	1.08	1.07	.94	.88	1.03	.94
25	.88	.88	.89	.75	2.32	1.22	1.09	1.20	.94	1.53	1.02	.98
26	.90	.86	.84	.80	2.38	1.24	1.08	1.02	.95	2.27	.99	.94
27	.94	.85	.89	.80	1.86	1.22	1.09	1.01	.94	1.44	.97	.95
28	.88	.88	.81	.86	1.60	1.50	1.05	1.00	.94	1.13	1.01	.97
29	.86	.95	.81	.81		1.33	1.10	1.00	1.15	.98	1.01	1.02
30	.86	.83	.85	.80	-------	1.26	1.09	1.00	1.06	.94	.96	.95
31	.88	-------	.83	.81	-------	1.22	-------	.94	-------	1.25	1.09	-------

DELAWARE BASIN—STATION NO. 10

LEHIGH RIVER AT BETHLEHEM

Location.—At nine-span steel highway bridge, three spans over the normal river channel, New Street, Bethlehem, Northampton County, about 800 feet upstream from the mouth of Monocacy Creek and about 5 miles downstream from the mouth of Jordan Creek.

Drainage Area.—1,240 square miles.

Records Available.—September 22, 1902, to February 13, 1905, and April 26, 1909, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Thomas A. Roach. Elevation of gage zero 210.64 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Right bank is high and not subject to overflow; left is low and subject to overflow at high stages. Bed is composed of sand and gravel. Control is at a riffle about 1,000 feet downstream from the gage; shifts occasionally. Monocacy Creek enters from left just downstream from the low-water control.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 16.2 feet at 1 a.m. October 1 (discharge, about 43,500 second-feet); minimum, 1.60 feet at 3.30 p.m. January 24 (discharge, 425 second-feet).

Ice.—Stage-discharge relation seldom affected by ice.

Diversions.—During navigation season water is diverted past the gage through the Lehigh Coal and Navigation Company Canal, which follows the left bank and passes under the left span of bridge.

Accuracy.—Stage-discharge relation permanent. Rating curve well defined below 1,800 second-feet and fairly well defined between 1,800 and 31,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good for medium and high stages; only fair for low stages owing to uncertain amount of water diverted by canal.

Discharge measurements of Lehigh River at Bethlehem, during the year ending September 30, 1925.

No.	Date	Made by	Gage Height	Discharge
			Feet	Sec. ft.
71	May 14	H. J. McIntyre	3.17	2,400
72	June 30	J. M. Snavely	2.40	1,220

Daily Mean Gage Height, in feet, of Lehigh River at Bethlehem, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.65	2.01	2.14	2.16	1.90	4.40	3.28	2.54	2.88	2.17	4.01	1.77
2	7.58	1.96	2.10	1.96	1.96	4.69	3.38	2.48	2.76	2.02	3.38	1.81
3	5.66	1.99	2.17	1.96	1.94	4.04	3.28	2.44	2.64	1.96	3.04	1.73
4	4.68	1.96	2.14	2.02	2.00	3.72	3.29	2.48	2.60	1.92	2.76	1.78
5	4.25	1.90	2.23	2.14	1.99	3.68	3.16	2.42	2.51	1.99	2.68	1.66
6	3.88	1.84	3.04	2.13	1.94	3.55	2.94	2.32	2.42	1.93	2.60	1.70
7	3.56	1.85	2.82	2.08	1.94	3.43	2.89	2.27	2.36	1.89	2.53	2.05
8	3.47	1.82	2.74	2.12	2.11	3.38	2.86	2.21	2.29	1.91	2.40	2.07
9	3.30	1.76	3.24	1.98	2.30	3.41	2.76	2.15	2.26	2.42	2.44	1.91
10	3.15	1.73	3.00	1.82	3.12	3.47	2.68	2.13	2.44	2.26	3.16	1.75
11	3.04	1.70	2.88	1.86	6.95	3.46	2.87	2.76	2.28	2.15	2.79	1.81
12	2.92	1.80	2.73	1.95	11.99	3.62	2.78	4.00	2.19	2.02	2.60	1.68
13	2.82	1.82	2.65	1.93	8.20	3.51	2.70	3.42	2.08	1.93	2.46	1.78
14	2.72	1.79	2.62	1.90	6.35	3.48	2.62	3.20	2.11	1.82	2.39	2.42
15	2.65	1.78	2.46	1.84	5.74	3.42	3.11	3.12	2.10	1.74	2.56	2.25
16	2.60	1.73	2.50	1.86	5.94	3.42	2.90	2.98	2.14	1.91	2.46	2.62
17	2.43	1.75	2.55	1.88	5.68	3.38	2.78	2.99	2.24	2.41	2.36	2.34
18	2.28	1.70	2.68	1.86	5.24	3.53	2.64	2.98	2.16	2.04	2.22	2.07
19	2.29	1.65	2.64	1.90	4.74	3.84	2.61	3.04	2.10	1.94	2.14	1.94
20	2.28	1.70	2.55	1.96	4.62	4.52	4.52	2.72	2.94	2.07	1.90	1.96
21	2.19	1.67	2.13	2.03	4.55	4.16	2.63	2.79	1.99	1.96	2.10	1.96
22	2.20	2.34	1.86	1.94	4.80	3.98	2.58	2.70	1.90	2.30	2.24	1.90
23	2.11	3.42	2.00	1.82	5.05	3.68	2.52	2.62	1.84	3.16	2.14	1.84
24	2.02	2.98	2.08	1.64	5.82	3.47	2.47	2.95	1.81	2.54	2.06	1.78
25	1.98	2.80	2.21	1.66	5.45	3.36	2.44	3.99	2.11	2.35	2.00	1.72
26	2.00	2.58	2.02	1.85	5.68	3.26	2.72	3.80	2.04	-------	1.96	1.68
27	1.98	2.45	1.86	1.90	4.95	3.33	2.62	3.50	1.92	3.20	1.89	1.69
28	1.99	2.35	2.01	1.86	4.48	3.92	2.50	3.34	1.88	2.81	1.86	1.75
29	2.04	2.26	1.96	-------	-------	3.68	2.48	3.22	2.45	3.02	1.72	1.68
30	1.99	2.18	1.94	1.86	-------	3.49	2.42	3.20	2.49	2.73	1.78	1.81
31	1.98	-------	2.11	1.86	-------	3.35	-------	3.04	-------	3.07	1.83	-------

Note.—Gage height Jan. 29 and July 26 not observed.

Daily discharge, in second-feet, of Lehigh River at Bethlehem, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	27,800	750	908	908	650	4,410	2,400	1,380	1,830	908	3,610	592
2	12,800	700	850	700	700	5,050	2,560	1,310	1,640	750	2,560	560
3	7,470	750	908	700	700	3,610	2,400	1,250	1,500	700	1,970	522
4	5,050	700	908	750	750	3,070	2,400	1,310	1,440	650	1,640	500
5	4,000	650	1,020	908	750	3,070	2,250	1,190	1,310	750	1,570	455
6	3,430	605	1,970	908	700	2,900	1,900	1,070	1,190	700	1,440	485
7	2,900	605	1,700	850	700	2,560	1,830	1,020	1,130	650	1,380	800
8	2,730	560	1,640	850	850	2,560	1,700	965	1,070	650	1,190	800
9	2,400	522	2,250	750	1,070	2,560	1,640	908	1,020	1,190	1,250	650
10	2,250	522	1,970	560	2,110	2,730	1,570	908	1,250	1,020	2,250	522
11	1,970	485	1,830	605	11,100	2,730	1,760	1,640	1,070	908	1,700	560
12	1,830	560	1,640	700	25,800	2,900	1,700	3,610	965	750	1,440	485
13	1,700	560	1,500	700	14,400	2,730	1,570	2,560	850	700	1,250	560
14	1,570	560	1,440	650	9,390	2,730	1,440	2,250	850	560	1,190	1,190
15	1,500	560	1,250	605	7,470	2,560	2,110	2,110	850	522	1,380	1,020
16	1,440	522	1,310	605	8,000	2,560	1,830	1,970	908	650	1,250	1,440
17	1,250	522	1,380	650	7,470	2,560	1,700	1,830	1,020	1,190	1,130	1,130
18	1,070	485	1,570	605	6,210	2,730	1,500	1,970	908	800	965	800
19	1,070	455	1,500	650	5,050	3,250	1,440	1,970	850	700	908	700
20	1,070	485	1,380	700	4,830	4,620	1,570	1,900	800	650	850	750
21	965	455	908	800	4,830	4,000	1,500	1,700	750	700	850	700
22	965	1,130	605	700	5,270	3,610	1,440	1,570	650	1,070	1,020	650
23	850	2,560	750	560	5,730	3,070	1,310	1,440	605	2,250	908	605
24	750	1,970	850	455	7,730	2,730	1,250	1,900	560	1,380	800	560
25	750	1,700	965	455	6,700	2,560	1,250	3,610	850	1,130	750	485
26	750	1,440	750	605	7,470	2,400	1,570	3,250	800	1,570	700	485
27	750	1,250	605	650	5,730	2,400	1,440	2,730	650	2,250	650	485
28	750	1,130	750	605	4,620	3,430	1,310	2,400	650	1,700	605	522
29	800	1,020	700	605	-------	3,070	1,310	2,250	1,250	1,970	485	485
30	750	965	700	605	-------	2,730	1,190	2,250	1,310	1,640	560	560
31	750	-------	850	605	-------	2,560	-------	1,970	-------	2,110	605	-------

Note—Discharge does not include the water diverted past the gage through the Lehigh Coal and Navigation Company Canal. Canal was closed Dec. 6 to Mar. 22. Discharge estimated, because of no gage height record, Jan. 29 by interpolation and July 26 from study of gage height graph.

Monthly discharge of Lehigh River at Bethlehem, for the year ending September 30, 1925.

(Drainage area 1,240 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	27,800	750	3,040	2.45	2.82
November	2,560	455	839	.677	.76
December	2,250	605	1,210	.976	1.13
January	908	455	677	.546	.63
February	25,800	650	5,600	4.52	4.71
March	5,050	2,400	3,050	2.46	2.84
April	2,560	1,190	1,700	1.37	1.53
May	3,610	908	1,880	1.52	1.75
June	1,830	560	1,020	.823	.92
July	2,250	522	1,070	.863	.99
August	3,610	485	1,250	1.01	1.16
September	1,440	485	668	.539	.60
The Year	27,800	455	1,810	1.46	19.84

Note.—Discharge and run-off does not include the water diverted past the gage through the Lehigh Coal and Navigation Company Canal. Canal was closed Dec. 6 to Mar. 22.

DELAWARE BASIN—STATION NO. 11

DELAWARE RIVER AT RIEGELSVILLE

Location.—At suspension bridge between Riegelsville, Warren County, N. J., and Riegelsville, Bucks County, Pa., 600 feet above mouth of Musconetcong River and 9 miles below Lehigh River.

Drainage Area.—6,190 square miles.

Records Available.—July 3, 1906, to September 30, 1925.

Gage.—Automatic water-stage recorder on left bank (New Jersey side) 20 feet above bridge; inclined staff and chain gages used prior to February 28, 1924. Gage read and recorder operated by J. H. Brotzman.

Discharge Measurements.—Made from bridge.

Channel and Control.—Rock outcrop and large boulders; practically permanent.

Extremes of Discharge.—Maximum stage during year from water stage recorder, 24.2 feet at 6.00 p.m. October 1 (discharge, 132,000 second-feet); minimum stage 2.16 feet at 7.00 p.m. November 20 (discharge, 1,530 second-feet). Not including flow in Canal.

1906-1925: Maximum stage recorded, 25 feet March 28, 1913 (discharge, 144,000 second-feet); minimum stage recorded, 1.55 feet at 8.00 a.m. September 20, 1908 (discharge, 870 second-feet). Not including flow in Canal.

The flood of October 10-11, 1903, reached a stage of 35.9 feet determined by levels from three good flood marks. Maximum discharge during this flood has been estimated 275,000 second-feet at Reigelsville from observations made at Lambertville.

Ice.—Stage-discharge relation affected by ice during severe winters only.

Diversions.—The Delaware Division of the Pennsylvania Canal diverts about 230 second-feet from Lehigh River near its mouth from about the last of March to the middle of December each year.

Accuracy.—Stage-discharge relation permanent, not affected by ice this year. Rating curve well defined. Operation of water-stage recorded satisfactory. Daily discharge ascertained by applying to rating table mean daily gage height, determined from inspection of recorder graph, or for days of considerable fluctuation, by averaging discharge for intervals of the day. Records good.

Cooperation.—Record furnished by United States Geological Survey Office, Trenton, N. J.

Discharge measurements of Delaware River at Riegelsville, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
39	Oct. 2	Otto Lauterhahn	19.75	94,600
40	2	do	17.61	77,600
41	3	do	12.66	44,900
42	3	do	11.71	40,200
43	Feb. 4	H. C. Barksdale	2.82	2,860
44	Sept. 21a	Otto Lauterhahn	4.19	6,760

a Measurement also made of discharge in canal, 220 second-feet.

Daily discharge, in second-feet, of Delaware River at Riegelsville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	117,000	2,600	4,930	4,120	3,080	19,900	18,600	8,170	7,560	4,120	11,500	2,160
2	89,600	2,480	4,390	3,330	3,330	21,700	18,100	9,100	6,950	3,850	9,100	1,960
3	43,300	2,480	4,390	4,120	3,080	19,000	17,300	9,410	7,600	3,590	7,860	1,860
4	27,400	2,480	4,120	4,660	3,080	17,300	16,100	8,790	6,950	3,200	6,650	1,770
5	19,900	2,370	4,120	4,660	3,080	15,700	15,300	8,170	6,650	3,200	6,070	1,860
6	15,300	2,370	5,490	4,390	3,200	14,500	14,100	7,860	6,070	3,590	5,490	1,770
7	12,900	2,370	6,360	4,390	3,330	14,900	13,000	7,560	5,210	4,930	5,210	2,570
8	11,100	2,260	6,650	4,120	3,330	15,300	12,000	7,260	4,660	4,120	4,930	2,840
9	9,720	2,370	8,480	4,120	3,850	15,700	11,000	6,950	4,390	4,120	5,780	3,080
10	8,790	2,160	10,000	3,850	5,490	15,700	11,000	6,650	4,660	4,660	6,950	3,080
11	7,860	2,160	10,000	3,850	18,400	14,900	9,720	6,950	5,780	4,120	8,380	3,200
12	6,950	2,160	8,790	3,330	99,800	15,700	9,720	10,800	4,930	4,390	7,860	2,840
13	6,360	2,160	7,860	3,330	93,200	17,700	9,100	13,700	4,390	4,930	6,650	2,600
14	5,780	2,060	7,560	3,200	53,600	16,100	8,790	12,200	3,850	3,850	6,070	3,850
15	5,490	1,960	6,070	2,840	41,200	15,700	9,720	11,100	3,850	3,200	7,260	12,200
16	5,210	1,960	5,780	2,720	37,800	16,900	10,000	10,400	3,850	2,960	7,260	14,500
17	4,930	1,960	6,070	3,080	34,500	15,700	9,720	10,000	4,120	3,080	6,360	14,500
18	4,660	1,960	6,070	3,590	29,400	15,700	9,720	10,400	3,850	3,330	5,490	12,500
19	4,390	1,770	7,560	3,330	24,500	19,900	8,790	9,720	3,330	3,330	4,660	9,410
20	4,390	1,590	9,100	3,200	21,700	23,600	8,480	8,790	3,200	3,850	4,390	7,560
21	3,850	1,680	8,480	3,080	20,800	22,200	9,410	7,860	3,080	3,330	4,120	6,650
22	3,850	2,640	6,650	3,200	20,800	19,000	13,300	7,260	2,840	3,330	3,850	5,780
23	3,590	3,850	4,390	3,080	24,500	16,500	11,800	6,650	2,600	5,790	3,850	5,490
24	3,590	11,100	4,390	2,840	31,400	14,900	10,800	7,260	2,600	10,400	3,850	4,930
25	3,330	12,200	5,490	2,720	36,200	13,300	9,720	11,100	2,840	8,790	3,330	4,120
26	3,080	9,410	4,390	2,960	34,500	13,300	9,410	12,200	3,200	7,860	3,080	3,850
27	3,080	7,560	4,390	3,200	30,900	13,300	9,410	11,100	3,330	8,270	2,840	3,330
28	2,960	6,360	4,390	2,840	23,600	13,700	9,720	9,720	3,200	14,300	2,600	3,330
29	2,960	5,780	3,850	2,600	-------	20,400	8,790	8,790	3,590	11,400	2,370	3,080
30	2,720	5,490	3,590	2,840	-------	20,800	8,170	8,480	4,120	9,100	2,160	3,080
31	2,720	-------	4,390	2,960	-------	18,100	-------	7,860	-------	8,480	2,160	-------

Note.—This table indicates river discharge only, does not include the diversion by Pennsylvania Canal which was open Oct. 1 to Dec. 5 and Mar. 24 to Sept. 30. Staff gage readings used Apr. 11-21. Discharge Apr. 7-10 and June 3 estimated, based on study of comparison with record of flow at Belvidere, N. J.

Monthly discharge of Delaware River at Riegelsville, for the year ending September 30, 1925.

(Drainage area 6,190 square miles)

Month	Discharge in Second-feet					Run-off in inches
	Actual Flow			Natural Flow		
	Maximum	Minimum	Mean	Mean	Per Sq. Mi.	
October	117,000	2,700	14,430	14,600	2.36	2.72
November	12,200	1,590	3,660	2,800	.628	.70
December	10,000	3,590	6,070	6,110	.987	1.14
January	4,660	2,600	3,430	3,440	.556	.64
February	99,800	3,080	25,400	25,400	4.10	4.27
March	23,600	13,300	17,000	17,100	2.76	3.18
April	18,600	8,170	11,300	11,600	1.87	2.09
May	13,700	6,650	9,110	9,340	1.51	1.74
June	7,560	2,600	4,320	4,650	.751	.84
July	14,300	2.960	5,460	5,630	.910	1.05
August	11,500	2,160	5,420	5,650	.913	1.05
September	14,500	1,770	4,980	5,220	.843	.94
The Year	117,000	1,590	9,130	9,290	1.50	20.36

Note.—"Natural Flow" is "Actual Flow" plus estimated 230 second-feet diverted down the Pennsylvania Canal. The Canal was closed Dec. 6 to Mar. 23.

DELAWARE BASIN—STATION NO. 12

DELAWARE RIVER AT TRENTON, N. J.

Location.—On the Calhoun Street Bridge, Trenton, Mercer County, 1 mile above Pennsylvania Railroad bridge and half a mile above mouth of Assunpink Creek.

Drainage Area.—6,800 square miles.

Records Available.—February 24, 1913, to September 30, 1925.

Gage.—Chain gage on downstream side of bridge about 100 feet from left abutment, read by U. S. Weather Bureau.

Discharge Measurements.—Made from upstream side of bridge.

Channel and Control.—Rocky and permanent at the rapids a few hundred feet below bridge.

Extremes of Discharge.—Maximum stage during year, from high water mark, 13.0 feet at 1.00 a.m. February 13 (discharge, 154,000 second-feet); minimum stage recorded, —0.10 foot on November 21 (discharge, 1,720 second-feet).

1913-1925: Maximum stage recorded 13.3 feet during night of March 28-29, 1913 (discharge, 160,000 second-feet); minimum stage recorded —0.40 foot several times in October and November 1914 (discharge, 1,240 second-feet).

Ice.—Stage-discharge relation affected by ice.

Diversions.—The Delaware Division of the Pennsylvania Canal diverts about 50 second-feet by the gaging station from about March 31 to December 15 each year. The Delaware and Raritan Canal feeder diverts about 140 second-feet from the first of March to the last of December each year. The Trenton Power Canal diverts about 210 second-feet, around the gage, daily.

Accuracy.—Stage-discharge relation considered permanent, except during ice affected periods. Rating curve well defined between 1,700 and 90,000 second-feet. Gage read to hundredths once a day. Daily discharge ascertained by applying daily gage height to rating table. Records fairly good.

Cooperation.—Record furnished by United States Geological Survey Office, Trenton, N. J.

Discharge measurements of Delaware River at Trenton, N. J., during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec. ft.
16	Oct. 28	H. C. Barksdale	0.49	3,240
17	May 13	do	2.57	14,000
18	13	O. W. Hartwell	2.71	15,300
19	July 3	Otto Lauterhahn	.68	3,840
20	Aug. 3	do	1.83	8,800
21	Sept. 19	do	2.25	11,700

Discharge Measurements of Canals which diverted water around gaging station on Delaware River at Trenton, N. J., during the year ending September 30, 1925.

Date	Pennsylvania Canal	Power Canal Trenton	Delaware and Raritan Feeder
	Sec. ft.	Sec. ft.	Sec. ft.
Oct. 28,	71	210	140
April 28,	63	235	147
July 23,	36	192	109

Daily discharge, in second-feet, of Delaware River at Trenton N. J., for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	105,000	2,560	5,000			24,700	18,900	8,500	8,600	4,230	13,000	2,190
2	108,000	2,560	5,000			22,900	18,100	9,150	8,100	4,200	11,600	2,190
3	55,800	2,560	4,220			21,300	17,300	9,750	8,100	3,520	8,600	2,080
4	32,400	2,300	3,860			19,700	17,300	9,150	7,600	3,520	7,590	2,080
5	22,900	2,300	4,220		3,200	17,300	16,500	9,150	7,100		6,500	1,990
6	17,300	2,300	5,000			16,500	15,100	9,150	7,100		5,800	2,000
7	14,400	2,300	7,100			15,800	15,100	8,600	5,400	4,400	5,800	2,600
8	12,300	2,300	6,650			16,500	14,400	8,100	5,400		5,400	2,800
9	11,000	2,300	8,600			16,500	12,300	8,100	5,400		6,650	3,200
10	9,150	2,080	10,400		13,700	16,500	12,300	8,100	5,400			3,180
11	8,600	2,080	11,000		15,800	15,800	12,300		4,600	5,000		3,200
12	7,100	1,990	9,750		39,300	15,100	12,300		4,600	4,230	8,000	2,800
13	6,650	2,080	8,600		110,000	15,100	10,400		4,220	3,860		3,020
14	6,200	2,080	8,600		62,300	15,800	9,750	12,000	4,220	3,860		3,180
15	5,800	1,990	5,800	3,390	43,300	15,100	10,400		4,220	3,860		14,000
16	5,400	2,080	5,000		43,300	16,500	11,600		4,220	4,220	8,100	17,300
17	4,600	1,900	5,800		36,500	16,500	11,000	11,000	4,220	3,100	8,100	15,100
18	4,600	1,810	6,200		33,400	16,500	10,400	10,400	3,860	3,180	7,600	15,100
19	4,220	1,810	6,650		27,400	18,000	10,400	9,750	3,520	3,020	5,400	11,000
20	3,860	1,900	8,600		23,800	22,100	9,150	9,750	3,180	3,020	4,600	9,150
21	3,860	1,720	9,150		22,900	24,700	10,000	9,750	2,860	3,180	4,200	8,600
22	3,860	1,720	7,100		22,900	21,300	16,000	9,150	2,860	3,180	4,200	6,650
23	3,860	1,990			24,700	18,000	15,000	7,600	2,860	6,000	4,220	5,800
24	3,020	7,100			31,400	17,000	12,000	7,100	2,710	12,000	4,220	5,400
25	3,180	14,400			28,400	15,100	11,000		2,710	9,000	3,520	5,000
26	3,180	11,000			26,500	14,400	10,400		2,710	8,500	3,180	5,000
27	2,800	8,600			34,400	13,700	9,750	12,000	3,180	9,150	2,800	3,860
28	2,860	7,100	4,600		26,500	12,300	9,750		3,180	13,700	2,710	3,180
29	2,710	6,650			-------	12,300	9,000		3,800	15,000	2,430	3,020
30	2,710	5,800			-------	13,700	8,500	8,600	4,200	10,000	2,430	2,860
31	2,560	-------			-------	19,700	-------	8,600	-------	9,150	2,300	-------

Note.—This table indicates flow in river only. Diversion by canals included in monthly table. For periods when gage height record is missing, Dec. 23 to Feb. 9, Mar. 19, 23, 24, Apr. 21-24, 29, 30, May 1, 11-16, 25-29, June 29, 30, July 1, 2, 5-10, 23-26, 29-30, Aug. 1, 4, 5, 10-15, 0-22, Sept. 6-9, 11, 12, and 15, discharge estimated by study of comparison with records of flow at Riegelsville and Belvidere. Braced figures show mean discharge for the period included.

Monthly discharge of Delaware River at Trenton, N. J., for the year ending September 30, 1925.

(Drainage area 6,800 square miles)

Month	Discharge in Second-feet					Run-off in inches
	Actual Flow			Natural Flow		
	Maximum	Minimum	Mean	Mean	Per Sq. Mi.	
October,	108,000	2,560	15,500	15,900	2.34	2.70
November,	14,400	1,720	3,650	4,050	.596	.66
December,	11,000	3,860	6,250	6,470	.951	1.10
January,	----------	----------	3,390	3,600	.529	.61
February,	110,000	----------	27,400	27,600	4.06	4.23
March,	24,700	12,300	17,300	17,500	2.57	2.96
April,	18,900	----------	12,500	12,900	1.90	2.12
May,	----------	7,100	10,000	10,400	1.53	1.76
June,	8,600	2,710	4,670	5,070	.746	.83
July,	----------	3,220	5,750	6,150	.904	1.04
August,	----------	2,300	6,090	6,490	.954	1.10
September,	17 300	1,990	5,580	5,980	.879	.98
The Year,	110,000	1,720	9,710	10,000	1.47	20.09

Note.—"Natural Flow" is "Actual Flow" plus following diversions;—Pennsylvania Canal, 56 second-feet. Oct. 1 to Dec. 5 and Mar. 24. to Sept. 30; Trenton Power Canal 210 second-feet daily; Delaware and Raritan Canal feeder 140 second-feet Oct. 1 to Nov. 30 and Apr. 1 to Sept. 30.

DELAWARE BASIN—STATION NO. 13

LITTLE SCHUYLKILL RIVER AT TAMAQUA

Location.—At three-span stone arch highway bridge, Broad Street, Tamaqua, Schuylkill County, about 500 feet upstream from the mouth of Panther Creek.

Drainage Area.—44 square miles.

Records Available.—June 23, 1916, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by W. P. Griffiths.

Discharge Measurements.—Made from upstream side of bridge; by wading and at Panther Valley Water Company weir about one-half mile upstream from the gage.

Channel and Control.—Both sides of the channel are outlined by retaining walls extending upstream and downstream from the bridge. Banks subject to overflow only during extreme floods. Bed is composed of gravel and rocks. Low-water control is a gravel bar extending diagonally across the channel at downstream side of bridge. Stage-discharge relation not permanent, owing to changes in the gravel bar and lodging of debris and waste on the control.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 5.6 feet at 7 p.m. February 11 (discharge, about 2,620 second-feet); minimum, 2.22 feet at 5 p.m. September 22, on September 24 and at 5 p.m. September 26 (discharge, 24 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Diversions.—The Panther Valley Water Company pumps water from the stream about one-half mile upstream from the gaging station for mine service, which is returned to the stream through Panther Creek.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 200 second-feet and fairly well defined between 200 and 1,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for discharges, above 200 second-feet when they may be only fair.

Discharge measurements of Little Schuylkill River at Tamaqua, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
96	May 20a	H. J. McIntyre	2.52	65.1
97	20b	do	2.52	55.8

a Measurement made by wading 400 feet downstream from gage.
b Measurement made by wading 405 feet downstream from gage.

Daily Mean Gage Height, in feet, of Little Schuylkill River at Tamaqua, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.40	2.61	2.52	2.60	2.73	2.96	2.71	2.61	2.64	2.53	2.86	2.33
2	3.65	2.58	2.58	2.52	2.69	2.86	2.72	2.56	2.59	2.55	2.74	2.32
3	3.50	2.55	2.56	2.35	2.77	2.87	2.70	2.55	2.56	2.50	2.70	2.31
4	3.32	2.54	2.53	2.48	2.77	2.77	2.68	2.57	2.53	2.46	2.68	2.34
5	3.14	2.54	2.49	2.72	2.81	2.73	2.67	2.53	2.52	2.49	2.70	2.34
6	3.05	2.54	2.36	2.75	2.76	2.72	2.64	2.50	2.49	2.47	2.66	2.34
7	2.96	2.53	2.59	2.67	2.72	2.72	2.64	2.47	2.48	2.43	2.62	2.42
8	2.92	2.55	2.62	2.66	2.78	2.70	2.62	2.48	2.47	2.49	2.57	2.36
9	2.88	2.54	2.66	2.62	2.85	2.68	2.61	2.48	2.51	2.49	2.76	2.30
10	2.85	2.52	2.60	2.61	3.43	2.68	2.61	2.51	2.52	2.48	2.64	2.42
11	2.83	2.52	2.52	2.62	4.48	2.67	2.61	2.98	2.43	2.50	2.56	2.31
12	2.80	2.47	2.59	2.60	4.68	2.78	2.60	2.87	2.37	2.45	2.54	2.23
13	2.78	2.53	2.67	2.61	3.65	2.70	2.60	2.80	2.38	2.42	2.57	2.58
14	2.76	2.51	2.79	2.65	3.36	2.71	2.60	2.78	2.36	2.39	2.53	2.67
15	2.75	2.47	2.92	2.63	3.30	2.70	2.70	2.72	2.40	2.37	2.47	2.30
16	2.74	2.46	2.87	2.64	3.25	2.68	2.62	2.67	2.57	2.40	2.44	2.44
17	2.71	2.49	2.75	2.61	3.21	2.73	2.56	2.66	2.47	2.54	2.48	2.41
18	2.70	2.56	2.69	2.60	3.64	2.73	2.54	2.64	2.37	2.45	2.47	2.31
19	2.68	2.59	2.65	2.63	2.97	2.82	2.54	2.59	2.32	2.41	2.47	2.29
20	2.67	2.57	2.59	2.57	2.97	2.74	2.52	2.54	2.31	2.40	2.45	2.25
21	2.64	2.53	2.68	2.57	2.97	2.74	2.53	2.51	2.31	2.44	2.63	2.27
22	2.66	2.94	2.79	2.55	3.03	2.74	2.51	2.49	2.30	2.98	2.50	2.23
23	2.64	2.85	2.81	2.64	3.19	2.72	2.51	2.48	2.32	2.79	2.41	2.24
24	2.61	2.58	2.76	2.81	3.13	2.72	2.52	2.88	2.32	2.67	2.39	2.22
25	2.59	2.53	2.86	2.78	3.07	2.69	2.52	2.94	2.63	2.83	2.40	2.24
26	2.58	2.44	3.02	2.73	3.15	2.68	2.54	2.86	2.40	2.99	2.34	2.23
27	2.56	2.43	3.07	2.72	3.07	2.70	2.56	2.79	2.33	2.82	2.36	2.25
28	2.59	2.52	2.96	2.77	3.03	2.80	2.56	2.78	2.43	2.83	2.35	2.29
29	2.60	2.51	2.79	2.77	-------	2.75	2.58	2.74	2.82	2.80	2.35	2.28
30	2.59	2.50	2.76	2.70	-------	2.71	2.61	2.67	2.66	2.73	2.34	2.27
31	2.62	-------	2.69	2.74	-------	2.70	-------	2.64	-------	2.91	2.30	-------

Note.—Stage-discharge relation Nov. 17-20, Nov. 28 to Dec. 4 and Dec. 12 to Feb. 9 affected by ice.

Daily discharge, in second-feet, of Little Schuylkill River at Tamaqua, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,380	83	38	32	20	233	114	83	92	66	180	36
2	725	76	40	30	20	180	118	72	78	70	126	35
3	490	70	42	28	20	185	110	70	72	60	110	37
4	389	68	48	26	22	138	104	74	66	54	104	37
5	339	68	58	26	24	122	101	66	64	58	110	37
6	285	68	98	24	26	118	92	60	58	56	98	37
7	233	66	78	24	28	118	92	56	57	50	86	48
8	211	70	86	24	36	110	86	57	56	58	74	40
9	190	68	98	24	80	104	83	57	62	58	134	32
10	175	64	80	22	544	104	83	62	64	57	92	48
11	165	64	64	22	1,480	101	83	244	50	60	72	33
12	156	56	55	22	1,680	142	80	185	41	52	68	25
13	142	66	48	22	722	110	80	150	42	48	74	76
14	134	62	44	22	490	114	80	142	40	44	66	101
15	130	56	42	22	490	110	110	118	45	41	56	44
16	126	54	40	22	410	104	86	101	74	45	51	51
17	114	48	42	22	382	122	72	98	56	68	57	46
18	110	46	42	22	279	122	68	92	41	52	56	33
19	104	42	46	22	298	160	68	78	35	46	56	31
20	101	48	48	20	238	126	64	68	33	45	52	27
21	92	66	50	20	238	126	66	62	33	51	89	29
22	98	222	50	20	273	126	62	58	32	244	60	25
23	92	175	50	20	327	118	62	57	35	146	46	26
24	83	76	50	20	333	118	64	190	35	101	44	24
25	78	66	50	20	297	107	64	222	89	165	45	26
26	76	51	48	20	363	104	68	180	45	211	37	25
27	72	50	44	20	297	110	60	146	36	160	40	27
28	78	38	44	19	273	150	72	142	50	165	38	31
29	80	36	42	19	-------	130	76	126	160	150	38	30
30	78	38	38	19	-------	114	83	101	98	122	37	29
31	86	-------	36	19	-------	110	-------	92	-------	206	32	-------

Note.—Discharge does not include the quantity of water diverted by the Panther Valley Water Co. Discharge Nov. 17-20, Nov. 28 to Dec. 4 and Dec. 12 to Feb. 9 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Schuylkill River at Reading, Lehigh River at Tannery and Bethlehem and Swatara Creek at Harpers.

Monthly discharge of Little Schuylkill River at Tamaqua, for the year ending September 30 1925.

(Drainage area 44 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	1,380	72	213	4.84	5.58
November	222	58	68.7	1.56	1.74
December	98	23	52.9	1.23	1.42
January	32	19	22.4	.543	.63
February	1,680	20	344	7.84	8.16
March	233	101	127	2.89	3.33
April	118	60	81.7	1.86	2.08
May	244	56	107	2.43	2.80
June	160	32	58.0	1.32	1.47
July	244	41	90.6	2.06	2.38
August	180	32	71.9	1.64	1.89
September	101	24	37.5	.852	.95
The Year	1,680	19	105	2.39	32.43

Note.—Discharge does not include the quantity of water diverted by the Panther Valley Water Co. Run-off does include the quantity of water diverted.

DELAWARE BASIN—STATION NO. 14

SCHUYLKILL RIVER AT READING

Location.—At concrete viaduct, Penn Street, Reading, Berks County.

Drainage Area.—900 square miles.

Records Available.—May 6, 1914, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by H. J. Kline. Elevation of gage zero 188.50 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Right bank is high and not subject to overflow; left is low and stream begins to overflow the canal tow-path at a stage of 6.8 feet. Bed is composed of gravel. Low-water control is at a slight riffle about 700 feet downstream from the gage; may shift occasionally. Control for high stages is probably at the Pennsylvania Railroad bridge about 900 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 16.5 feet at 3 a.m. October 1 (discharge, about 38,300 second-feet); minimum, —0.40 foot at 8 a.m. June 24 (discharge, 290 second-feet); a stage of —0.6 foot, which existed for a short time, estimated from hydrograph, was reached at 6 a.m. December 15, probably due to canal operations (discharge, 210 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Diversions.—During navigation season water is diverted past the gage through the Schuylkill Navigation Company Canal, which follows along the left bank.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined below 15,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for low stages, when they are fair, owing to uncertain quantity of water diverted by canal.

Discharge measurements of Schuylkill River at Reading, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
60	May 12	H. J. McIntyre	2.34	2,220
61	12	J. M. Snavely	2.26	1,980
62	22	H. J. McIntyre	.50	782
63	22	C. R. Ibach	.47	824
64	June 30	H. J. McIntyre	2.49	2,400
65	July 2	J. M. Snavely	.52	886
66	9	do	.80	1,040
67	9	do	.78	1,040

Daily Mean Gage Height, in feet, of Schuylkill River at Reading, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.00	0.14	0.60	0.52	0.52	3.10	1.13	1.28	0.83	0.96	4.72	—0.27
2	6.13	.12	.52	.16	.72	3.60	1.94	1.00	.65	.46	3.16	—.20
3	4.20	.10	.30	.08	.82	2.14	1.28	.84	.47	.42	2.36	—.24
4	3.28	.32	.61	.12	.81	2.20	.98	.84	.45	.21	1.80	—.24
5	2.68	.35	.73	.84	.75	2.08	.92	.71	.35	.87	1.62	—.25
6	2.25	.47	2.01	.66	.82	1.99	.82	.66	.21	.54	1.48	—.23
7	2.04	.50	1.52	.54	.94	2.00	.69	.60	.10	.30	1.24	—.20
8	1.80	.41	1.22	.52	1.28	1.96	.70	.48	.15	.42	.99	—.13
9	1.54	.48	1.50	.45	1.57	1.86	.70	.43	.20	.82	1.59	—.18
10	1.41	.49	1.30	.44	3.12	1.74	.88	.40	.74	.62	2.20	—.24
11	1.24	.51	1.16	.42	8.82	1.70	1.10	1.03	.21	1.28	1.12	—.26
12	1.06	.50	1.12	.39	13.21	2.06	.95	2.22	.03	.63	.84	—.25
13	1.00	.49	1.15	.38	8.05	1.72	.87	1.66	—.10	.48	.88	—.19
14	.90	.65	1.00	.39	5.78	1.65	.79	1.50	—.04	.19	.90	.98
15	.80	.35	.24	.25	5.22	1.52	1.49	1.43	—.25	.12	.54	.29
16	.74	.51	.90	.24	5.87	1.40	1.18	1.17	.17	1.24	.45	1.06
17	.69	.41	1.01	.44	5.42	1.38	.85	1.27	.01	4.38	.40	.66
18	.56	.25	1.06	.72	4.60	1.59	.98	1.05	—.15	1.51	.33	.38
19	.56	.18	1.02	.69	4.00	1.99	.81	.83	—.25	.77	.26	.26
20	.49	.44	.84	.22	3.82	2.00	.94	.73	—.30	.58	.72	.12
21	.40	.50	.17	.42	4.02	1.91	.65	.61	—.23	.54	.56	.11
22	.30	1.14	.06	.41	4.39	1.80	.52	.48	—.34	1.36	.56	.04
23	.28	1.91	.14	.31	5.58	1.71	.35	.40	—.34	2.14	.15	—.08
24	.34	1.02	.71	.20	6.28	1.48	.42	.82	—.39	1.18	.10	—.16
25	.26	.70	.99	.44	5.58	1.40	.58	2.49	.05	2.26	.03	—.16
26	.18	.60	.34	.57	5.20	1.26	.68	1.80	.35	4.98	.03	—.21
27	.16	.46	.10	.55	4.10	1.92	.66	1.51	—.21	4.82	—.11	—.27
28	.17	.52	.30	.41	3.22	2.02	.46	1.27	.10	2.81	—.16	—.22
29	.12	.60	.31	.35	-------	1.48	.52	1.23	1.64	2.14	—.16	—.24
30	.12	.52	.26	.35	-------	1.35	.67	1.27	2.09	1.66	—.17	—.27
31	.12	-------	.40	.40	-------	1.29	-------	.93	-------	2.15	—.20	-------

Note.—Stage-discharge relation Jan. 5 to Feb. 11 affected by ice.

Daily discharge, in second-feet, of Schuylkill River at Reading, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	26,100	570	870	730	440	4,000	1,260	1,440	1,020	1,180	7,430	355
2	10,700	540	800	570	480	5,040	1,350	1,180	870	765	4,200	380
3	6,320	540	665	540	550	2,300	1,440	1,020	765	730	2,720	355
4	4,410	665	870	540	550	2,430	1,180	1,020	765	600	1,940	355
5	3,210	698	945	550	550	2,300	1,100	945	698	1,100	1,730	355
6	2,430	765	2,170	600	550	2,170	1,020	945	600	800	1,630	310
7	2,170	800	1,630	600	600	2,170	945	870	540	665	1,350	280
8	1,940	730	1,350	600	650	2,170	945	800	570	730	1,180	405
9	1,630	800	1,630	600	750	2,050	945	765	600	1,020	1,730	380
10	1,530	800	1,440	550	950	1,830	1,100	730	945	870	2,430	355
11	1,350	800	1,350	500	10,000	1,830	1,260	1,180	600	1,440	1,260	355
12	1,260	800	1,260	480	29,300	2,300	1,180	2,430	512	870	1,020	355
13	1,180	800	1,350	480	15,400	1,830	1,100	1,830	430	800	1,100	380
14	1,100	870	1,180	480	10,000	1,730	1,020	1,630	458	600	1,100	1,180
15	1,020	698	632	480	8,580	1,630	1,630	1,530	355	540	800	665
16	945	800	1,100	480	10,300	1,530	1,350	1,350	570	1,350	765	1,260
17	945	730	1,180	480	9,060	1,730	1,020	1,440	485	6,760	730	945
18	870	632	1,260	500	7,200	1,530	1,180	1,180	405	1,630	698	730
19	870	600	1,180	550	5,880	2,170	1,020	1,020	355	1,020	632	632
20	800	765	1,020	550	5,460	2,170	1,100	945	330	870	945	540
21	730	800	570	550	5,880	2,050	945	870	355	800	800	540
22	665	1,260	512	500	6,760	1,940	800	800	310	1,530	870	512
23	665	2,050	570	480	9,540	1,830	698	730	310	2,300	570	430
24	698	1,180	945	460	11,200	1,630	730	1,020	290	1,350	540	405
25	632	945	1,180	440	9,540	1,530	870	2,870	512	2,570	512	405
26	600	870	698	440	8,580	1,440	945	1,940	698	8,120	512	380
27	570	765	540	440	6,100	2,050	945	1,630	355	7,660	430	355
28	570	800	665	440	4,200	2,170	765	1,440	540	3,400	405	380
29	540	870	665	440	-------	1,630	800	1,350	1,730	2,300	405	356
30	540	800	632	440	-------	1,530	945	1,440	2,300	1,830	405	355
31	540	-------	730	440	-------	1,440	-------	1,100	-------	2,430	380	-------

Note.—Discharge does not include the water diverted past the gage through Schuylkill Navigation Company Canal. Canal was closed Nov. 1 to June 22. Discharge Jan. 5 to Feb. 11 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Lehigh River at Tannery and Bethlehem and Swatara Creek at Harpers.

Monthly discharge of Schuylkill River at Reading, for the year ending September 30, 1925. (Drainage area 900 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	26,100	540	2,500	2.78	3.20
November	2,050	540	825	.917	1.02
December	2,170	512	1,020	1.13	1.30
January	730	440	514	.571	.66
February	29,300	440	6,390	7.10	7.39
March	5,040	1,440	2,070	2.30	2.65
April	1,630	698	1,050	1.17	1.30
May	2,870	730	1,270	1.41	1.63
June	2,300	290	642	.713	.80
July	8,120	540	1,890	2.10	2.42
August	7,430	380	1,330	1.48	1.71
September	1,260	310	493	.548	.61
The Year	29,300	290	1,640	1.82	24.69

Note.—Discharge and run-off does not include the water diverted past the gage through the Schuylkill Navigation Company Canal. Canal was closed Nov. 1 to June 22.

DELAWARE BASIN—STATION NO. 15

PERKIOMEN CREEK AT GRATERS FORD

Location.—At two-span steel highway bridge, Graters Ford, Montgomery County.

Drainage Area.—280 square miles.

Records Available.—June 11, 1914, to September 30, 1925.

Gages.—Standard chain attached to upstream side of bridge and inclined staff installed in August, 1921, on left bank 1,700 feet upstream from the chain gage. Both gages are read to hundredths twice daily by C. K. Kulp. Elevation of chain gage zero 109.08 feet, United States Geological Survey datum. Elevation of staff gage zero is 3.23 feet above that of the zero of the chain gage.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of gravel and rock. Low stages at the chain gage are affected by back-water from the dam at Ironbridge. Control for low stages at the staff gage is at a riffle about 200 feet downstream from the gage, where the bed is composed of gravel and large stones; probably permanent. Control for medium and high stages, for both gages, is the dam at Ironbridge.

Extremes of Stage.—Chain gage. Maximum gage height during the year, estimated from hydrograph, 12.0 feet at midnight July 25-26; a stage of 15.2 feet, estimated from hydrograph, was reached at 8 p.m. February 11, but the water was held back by an ice jam; minimum, 3.08 feet at 5 p.m. October 14; a stage of 2.20 feet was reached at 8.30 a.m. August 27, while repairs were being made to the dam at Ironbridge.

Staff gage. Maximum gage height during the year, estimated from hydrograph, 8.4 feet at midnight July 25-26; a stage of 12.6 feet, estimated from hydrograph, was reached at 8 p.m. February 11, but the water was held back by an ice jam; minimum, 1.07 feet at 5 p.m. August 29.

Ice.—Stage-discharge relation usually affected by ice.

Regulation.—Stage-discharge relation during low stages at the chain gage is affected by operation of grist mill at Ironbridge.

Discharge measurements of Perkiomen Creek at Graters Ford, during the year ending September 30, 1925.

No.	Date	Made by	Staff Gage Height	Discharge
			Feet	Sec.-ft.
47	May 13	J. M. Snavely	1.81	252
48	13a	H. J. McIntyre	1.75	218

a Measurement made by wading 800 feet downstream from gage.

Daily Mean Gage Height, in feet, of Perkiomen Creek at Graters Ford (chain gage), for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.17	3.92	4.18	4.00	4.59	5.31	4.15	4.03	4.00	3.88	5.30	3.99
2	5.07	3.90	4.20	4.10	4.56	5.32	4.20	4.02	3.98	3.86	4.76	3.86
3	1.76	3.82	4.16	4.16	4.54	5.02	4.15	4.06	3.95	3.80	4.40	3.96
4	4.48	3.83	4.13	4.26	4.50	4.88	4.16	4.01	3.90	3.87	4.25	3.86
5	4.40	3.80	4.55	4.44	4.50	4.84	4.11	4.00	3.90	4.10	4.35	3.96
6	4.30	3.78	5.07	4.43	4.50	4.74	4.04	3.96	3.93	4.04	4.24	4.04
7	4.16	3.86	4.62	4.40	4.56	4.66	4.02	3.94	3.96	4.06	4.20	3.92
8	3.90	3.84	4.54	4.44	4.60	4.61	3.99	3.96	3.94	4.06	4.21	3.91
9	3.64	3.86	4.47	4.52	4.64	4.53	3.96	4.00	3.92	4.13	4.22	3.94
10	3.49	3.79	4.44	4.48	4.70	4.50	3.97	4.02	3.88	4.24	4.10	3.86
11	3.32	3.82	4.36	4.38	9.26	4.42	4.04	4.33	3.88	4.17	4.14	3.88
12	3.30	3.80	4.32	4.46	15.04	4.36	4.12	4.58	3.90	4.28	4.13	4.00
13	3.20	3.84	4.47	4.54	14.94	4.34	4.20	4.24	3.93	4.38	4.16	4.06
14	3.14	3.86	4.48	4.45	13.18	4.32	5.22	4.20	3.98	4.26	4.10	4.76
15	3.16	3.86	4.39	4.44	12.53	4.26	4.82	4.15	3.90	4.26	4.14	4.40
16	3.30	3.91	4.36	4.50	12.52	4.21	4.34	4.15	3.93	4.38	4.08	4.23
17	3.36	3.84	4.34	4.60	9.72	4.22	4.25	4.12	3.82	4.92	4.04	4.13
18	3.46	3.83	4.33	4.59	5.66	4.19	4.20	4.02	3.80	4.50	4.02	4.10
19	3.64	3.80	4.32	4.56	5.51	4.70	4.16	3.98	3.88	4.18	3.98	4.14
20	3.68	3.86	4.34	4.62	5.45	4.44	4.14	3.98	3.96	3.98	3.98	4.17
21	3.76	3.84	4.34	4.62	5.38	4.40	4.17	3.96	3.98	4.06	3.87	4.04
22	3.76	4.19	4.26	4.66	5.58	4.42	4.14	3.94	3.89	4.02	4.00	4.02
23	3.80	4.52	4.14	4.62	5.54	4.34	4.12	3.94	3.86	3.98	4.10	3.99
24	3.76	4.46	4.10	4.62	5.44	4.27	4.14	4.87	3.76	3.99	3.92	4.02
25	3.87	4.44	4.08	4.60	5.41	4.22	4.12	5.40	3.77	5.66	3.84	3.92
26	3.94	4.34	4.07	4.65	5.36	4.20	4.12	4.30	3.80	9.25	3.62	4.01
27	3.88	4.30	4.02	4.60	5.30	4.23	4.06	4.05	3.83	6.19	2.55	3.86
28	3.99	4.26	3.99	4.58	5.26	4.28	4.03	4.04	2.90	5.42	2.94	3.84
29	3.88	4.24	3.96	4.62	-------	4.28	4.04	4.04	3.82	4.82	3.22	3.72
30	3.86	4.21	3.97	4.64	-------	4.26	4.08	4.06	3.95	4.45	3.90	3.73
31	3.84	-------	4.00	4.59	-------	4.21	-------	4.04	-------	4.54	4.00	-------

Note.—Stage-discharge relation Jan. 2 to Feb. 17 affected by ice. Dam being repaired at Ironbridge Aug. 27-29.

Daily Mean Gage Height, in feet, of Perkiomen Creek at Graters Ford (staff gage), for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.80	1.30	1.35	1.36	1.94	2.88	1.80	1.54	1.31	1.36	2.62	1.22
2	2.46	1.32	1.34	1.40	1.94	2.92	1.80	1.53	1.24	1.43	2.11	1.20
3	2.24	1.30	1.31	1.52	1.92	2.87	1.78	1.56	1.21	1.40	1.82	1.21
4	2.08	1.28	1.34	1.53	1.96	2.76	1.74	1.56	1.17	1.36	1.70	1.18
5	1.98	1.25	1.73	1.58	2.00	2.76	1.72	1.52	1.13	1.64	1.74	1.18
6	1.82	1.26	2.34	1.60	2.00	2.68	1.72	1.50	1.10	1.63	1.70	1.20
7	1.66	1.26	2.35	1.62	2.04	2.58	1.68	1.49	1.14	1.52	1.66	1.38
8	1.58	1.24	2.20	1.63	2.06	2.51	1.64	1.47	1.13	1.50	1.64	1.40
9	1.40	1.27	2.11	1.66	2.08	2.42	1.62	1.47	1.10	1.54	1.60	1.42
10	1.31	1.27	2.08	1.59	2.10	2.38	1.64	1.48	1.11	1.60	1.58	1.44
11	1.28	1.26	2.00	1.56	-------	2.30	1.69	2.03	1.11	1.62	1.54	1.47
12	1.28	1.29	1.91	1.60	-------	2.26	1.66	2.40	1.13	1.67	1.54	1.46
13	1.24	1.26	1.92	1.68	-------	2.24	1.69	1.82	1.14	1.73	1.58	1.55
14	1.22	1.24	1.85	1.72	-------	2.20	2.44	1.73	1.16	1.61	1.56	1.95
15	1.21	1.24	1.72	1.74	-------	2.18	2.10	1.67	1.15	1.57	1.55	1.82
16	1.24	1.25	1.66	1.80	-------	2.16	1.95	1.62	1.13	1.67	1.52	1.64
17	1.25	1.26	1.66	1.82	7.21	2.14	1.88	1.58	1.16	1.94	1.50	1.61
18	1.29	1.24	1.70	1.84	3.34	2.12	1.85	1.54	1.18	1.80	1.48	1.59
19	1.28	1.23	1.70	1.83	3.23	2.64	1.86	1.47	1.16	1.66	1.44	1.62
20	1.28	1.24	1.66	1.82	3.14	2.26	1.89	1.41	1.22	1.60	1.37	1.62
21	1.30	1.25	1.66	1.88	3.04	2.08	1.72	1.38	1.25	1.58	1.32	1.60
22	1.30	1.48	1.61	1.95	3.10	1.98	1.66	1.36	1.25	1.56	1.34	1.60
23	1.28	1.60	1.54	1.94	3.10	1.90	1.60	1.32	1.26	1.52	1.34	1.51
24	1.29	1.52	1.50	1.94	3.15	1.85	1.58	2.25	1.23	1.52	1.28	1.46
25	1.27	1.42	1.41	1.94	3.10	1.85	1.57	2.67	1.21	2.85	1.27	1.46
26	1.28	1.30	1.38	1.95	3.04	1.82	1.57	1.64	1.22	5.98	1.24	1.34
27	1.30	1.26	1.33	1.95	2.98	1.80	1.54	1.50	1.21	2.78	1.13	1.32
28	1.38	1.34	1.30	1.94	2.88	1.85	1.51	1.42	1.24	2.21	1.12	1.28
29	1.34	1.40	1.30	2.01	-------	1.84	1.56	1.40	1.28	1.96	1.08	1.24
30	1.31	1.38	1.28	1.98	-------	1.86	1.57	1.53	1.42	1.84	1.28	1.25
31	1.28	-------	1.32	1.98	-------	1.82	-------	1.32	-------	2.03	1.26	-------

Note.—Stage-discharge relation Dec. 31 to Feb. 17 affected by ice. Gage height Feb. 11-16 not observed.

DELAWARE BASIN—STATION NO. 16

BRANDYWINE CREEK AT CHADDS FORD

Location.—At two-span steel Pennsylvania Railroad bridge, Chadds Ford, Delaware County.

Drainage Area.—285 square miles.

Records Available.—August 1, 1911, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by H. W. Guest. Elevation of gage zero 150.18 feet, United States Geological Survey datum.

Discharge Measurements.—Made from upstream side of bridge.

Channel and Control.—The right bank is low and the stream begins to overflow a flat 700 feet wide at a stage of about 6 feet. Left bank is high and not subject to overflow. Bed is composed of mud, gravel and stones. Control is at the first of a series of low riffles, about 150 feet downstream from the gage, where the bed is composed of gravel; shifts occasionally.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 10.5 feet at 9 p.m. February 11 (discharge, about 11,400 second-feet); minimum, 0.76 foot at 5.15 p.m. September 30 (discharge, 74 second-feet); a stage of 0.52 foot was observed at 5 p.m. September 21, but the flow was affected by mill operation.

Ice.—Stage-discharge relation usually affected by ice.

Regulation.—Fluctuations in stage during low water are caused by the operation of a mill about 200 feet upstream from the gage.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 1,200 second-feet and fairly well defined from 1,200 to 2,000 and 6,000 to 10,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good, except for medium and high stages when they may be only fair.

Discharge measurements of Brandywine Creek at Chadds Ford, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
43	May 12	H. J. McIntyre	2.04	447
44	13	do	1.72	354

Daily Mean Gage Height, in feet, of Brandywine Creek at Chadds Ford, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.89	1.36	1.14	1.17	1.51	2.58	1.75	1.82	1.29	1.06	1.85	0.84
2	2.05	1.28	1.14	1.27	1.49	2.12	1.86	1.75	1.25	1.03	1.21	.91
3	1.87	1.28	1.26	1.63	1.51	2.16	1.81	1.71	1.24	1.02	1.07	.83
4	1.70	1.27	1.24	1.43	1.53	1.98	1.75	1.65	1.17	.98	.99	.82
5	1.64	1.25	1.50	1.30	1.52	1.95	1.69	1.61	1.11	1.08	1.00	.82
6	1.61	1.26	2.41	1.29	1.57	2.15	1.63	1.58	1.15	1.07	1.03	.79
7	1.58	1.26	1.69	1.27	1.89	2.13	1.60	1.55	1.16	1.04	1.00	.85
8	1.53	1.26	1.52	1.25	1.89	2.08	1.57	1.52	1.22	1.15	.95	.85
9	1.47	1.25	1.45	1.21	2.35	2.03	1.53	1.49	1.14	1.13	1.10	.85
10	1.44	1.26	1.38	1.19	7.50	1.97	1.52	1.48	1.16	1.08	1.32	.81
11	1.39	1.25	1.35	1.17	9.34	1.92	1.69	1.70	1.08	1.06	1.16	.81
12	1.36	1.26	1.34	1.17	8.40	1.89	1.55	2.06	1.13	.98	1.06	.80
13	1.38	1.25	1.35	1.18	5.88	1.86	1.56	1.70	1.12	.99	1.04	.79
14	1.37	1.25	1.35	1.18	3.80	1.81	1.57	1.53	1.11	.95	1.15	1.45
15	1.36	1.27	1.35	1.17	3.32	1.74	3.26	1.50	1.19	.93	.93	1.18
16	1.37	1.31	1.34	1.24	3.85	1.71	1.99	1.47	2.73	1.03	.97	1.52
17	1.36	1.28	1.34	1.62	3.46	1.77	1.73	1.44	1.41	1.44	1.04	1.03
18	1.35	1.26	1.32	2.05	3.07	2.06	1.65	1.41	1.33	1.26	1.04	.89
19	1.36	1.29	1.31	1.81	2.78	3.03	1.61	1.38	1.26	1.05	1.00	.87
20	1.37	1.28	1.32	1.65	2.52	2.50	1.94	1.36	1.12	1.02	1.01	.85
21	1.35	1.29	1.32	1.67	2.59	2.05	1.72	1.33	1.10	.97	1.13	.68
22	1.34	1.44	1.25	1.66	2.59	1.83	1.63	1.32	1.07	.98	1.07	.82
23	1.33	1.98	1.27	1.63	2.62	1.81	1.59	1.30	1.08	1.31	1.02	.80
24	1.30	1.72	2.22	1.62	2.44	1.79	1.58	1.36	1.07	1.04	1.00	.78
25	1.29	1.66	2.32	1.63	2.30	1.73	1.55	2.33	1.15	1.37	.93	.81
26	1.28	1.49	1.79	1.54	2.29	1.71	1.63	1.65	1.23	1.35	.90	.80
27	1.31	1.35	1.59	1.47	2.17	1.67	1.59	1.41	1.10	1.54	.83	.78
28	1.36	1.32	1.25	1.42	1.93	2.09	1.61	1.39	1.07	1.16	.85	.90
29	1.33	1.35	1.26	1.57	-------	1.97	1.77	1.33	1.06	1.00	.80	.88
30	1.30	1.36	1.23	1.91	-------	1.85	1.88	1.43	1.05	.97	.80	.77
31	1.27	-------	1.22	1.67	-------	1.77	-------	1.33	-------	1.14	.89	-------

Note.—Stage-discharge relation Dec. 27 to Jan. 9, Jan. 16 to Feb. 10 and Mar. 3 affected by ice.

Daily discharge, in second-feet, of Brandywine Creek at Chadds Ford, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,370	233	167	150	130	727	367	285	210	137	404	88
2	482	206	361	160	130	502	404	367	196	128	183	101
3	404	206	200	160	150	460	385	349	193	126	140	86
4	349	203	193	160	150	461	367	332	170	116	118	84
5	332	196	280	160	160	442	349	314	151	142	120	84
6	314	200	249	160	200	524	332	314	164	140	128	78
7	314	200	340	160	210	524	314	297	167	131	120	90
8	297	200	280	170	250	502	297	280	187	164	110	90
9	270	196	263	170	310	482	297	277	161	158	148	90
10	260	200	239	177	2,000	442	280	273	167	142	220	82
11	243	196	230	170	8,020	422	349	349	142	137	167	82
12	233	200	226	170	5,750	422	297	482	158	119	137	80
13	239	196	230	174	2,580	404	297	349	154	118	131	78
14	236	196	230	174	1,310	385	297	297	151	110	164	268
15	233	203	230	170	1,060	367	1,060	250	177	105	105	174
16	236	216	226	160	1,310	349	461	270	774	128	114	280
17	233	206	226	160	1,160	367	367	260	249	260	131	128
18	230	200	220	150	962	482	332	249	223	200	131	97
19	233	210	216	150	821	915	314	239	200	134	120	93
20	236	206	220	150	680	680	442	233	154	126	123	90
21	230	210	220	150	727	482	349	223	148	114	158	62
22	226	260	196	130	727	404	332	220	140	116	140	84
23	223	461	203	130	727	385	314	218	142	216	126	80
24	213	349	545	130	657	385	314	233	140	131	120	77
25	210	332	589	130	589	367	297	612	164	236	105	82
26	206	277	385	120	589	349	332	332	190	230	99	80
27	216	230	230	120	524	332	314	249	148	297	86	77
28	233	220	180	120	442	502	314	243	140	167	90	99
29	223	230	160	120	-------	442	367	223	137	120	80	95
30	213	233	160	120	-------	404	422	256	134	114	80	75
31	203	-------	160	130	-------	367	-------	223	-------	161	97	-------

Note.—Discharge Dec. 27 to Jan. 9, Jan. 16 to Feb. 10 and Mar. 3 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for McMichaels Creek near Stroudsburg.

Monthly discharge of Brandywine Creek at Chadds Ford, for the year ending September 30, 1925.

(Drainage area 285 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	1,370	203	295	1.04	1.20
November	461	196	229	.804	.90
December	589	160	247	.867	1.00
January	177	120	150	.526	.61
February	8,030	130	1,150	4.04	4.21
March	915	349	461	1.62	1.87
April	1,060	280	365	1.28	1.43
May	612	213	298	1.05	1.21
June	774	134	188	.660	.74
July	297	105	152	.533	.61
August	404	80	135	.474	.55
September	280	62	102	.358	.40
The Year	8,030	62	309	1.08	14.73

SUSQUEHANNA BASIN

NORTH BRANCH SUSQUEHANNA RIVER AT BINGHAMTON, N. Y.

Location.—At four-span steel highway bridge, Washington Street, Binghamton, Broome County, about 500 feet upstream from mouth of Chenango River.

Drainage Area.—2,400 square miles.

Records Available.—July 31, 1901, to December 31, 1912, and January 23, 1915, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read to half-tenths twice daily by A. L. Coleman and C. F. Hand; during high stages more frequently. Elevation of gage zero 821.49 feet, United States Geological Survey datum.

Discharge Measurements.—Measurements were discontinued in 1912, as the stage-discharge relation is sometimes affected by backwater from the Chenango River.

Channel and Control.—Banks are high and not subject to overflow. Bed is composed of fine and coarse gravel.

Extremes of Stage.—Maximum gage height during the year, estimated from hydrograph, 17.3 feet at 5 a.m. October 1, and 17.27 feet observed at 5 p.m. February 12; minimum, 2.10 feet from 5 p.m. November 17 to 5 p.m. November 19 and at 5 p.m. November 20.

Ice.—Stage-discharge relation usually affected by ice.

Gage heights obtained at this station are for Flood Warning purposes.

Daily Mean Gage Height, in feet, of North Branch Susquehanna River at Binghamton, N. Y., for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16.65	2.35	2.70	3.77	2.42	5.06	6.46	3.81	2.81	3.97	2.73	2.22
2	13.35	2.30	2.68	3.30	2.47	5.20	6.14	4.36	2.66	3.55	2.65	2.16
3	8.58	2.30	2.75	3.00	2.67	5.06	5.86	4.08	2.66	3.17	2.63	2.14
4	6.00	2.22	2.60	3.00	2.67	4.30	5.51	3.84	2.66	3.00	2.55	2.14
5	4.80	2.20	2.93	2.96	2.70	4.37	5.06	4.23	2.70	3.03	2.47	2.19
6	4.20	2.30	2.63	2.92	2.42	4.17	4.56	4.24	2.53	2.97	2.45	2.24
7	3.80	2.28	2.70	3.05	2.37	4.29	4.34	4.11	2.43	2.97	2.79	2.24
8	3.60	2.22	3.18	2.80	2.32	4.77	4.01	3.81	2.37	2.80	3.15	2.34
9	3.60	2.30	3.38	3.00	2.50	5.32	3.81	3.61	2.45	2.65	3.12	2.82
10	3.35	2.30	3.45	2.93	4.89	5.32	3.64	3.46	2.45	3.10	3.66	2.62
11	3.20	2.18	3.25	2.75	10.67	5.19	3.66	3.54	2.47	3.80	3.42	2.46
12	3.12	2.15	2.98	2.97	16.29	5.52	3.64	4.04	2.55	3.45	3.56	2.36
13	2.95	2.20	2.90	2.70	14.90	5.17	3.51	3.86	2.43	2.97	3.49	2.96
14	2.90	2.20	2.86	2.92	10.82	5.21	3.46	3.48	2.35	2.65	3.64	5.14
15	2.85	2.20	3.10	2.90	8.54	7.39	3.51	3.24	2.30	2.55	3.86	5.69
16	2.80	2.20	2.88	3.08	7.30	7.35	3.91	3.08	2.23	2.53	3.36	5.56
17	2.65	2.12	2.85	2.65	6.47	6.12	3.78	3.05	2.25	2.55	3.09	4.79
18	2.60	2.10	3.40	2.80	5.52	5.85	3.56	3.11	2.67	2.67	2.86	4.12
19	2.60	2.10	4.08	2.96	4.92	6.54	3.56	3.02	2.60	2.73	2.74	3.72
20	2.60	2.12	4.35	2.87	4.65	6.69	5.78	2.91	2.40	2.63	2.69	3.46
21	2.50	2.20	4.26	2.75	4.57	5.87	6.62	2.82	2.25	2.55	2.64	3.54
22	2.50	2.51	3.04	3.05	5.19	5.17	5.31	2.72	2.25	3.08	2.64	3.32
23	2.50	4.76	3.30	2.55	7.59	4.79	4.81	2.60	2.25	4.30	2.64	3.16
24	2.50	4.97	3.15	2.70	10.39	4.37	4.44	2.58	2.25	3.83	2.56	2.99
25	2.45	3.90	3.38	2.45	9.92	4.15	4.14	2.81	2.25	3.15	2.49	2.89
26	2.45	3.40	4.00	2.35	9.05	4.07	4.48	2.96	2.35	2.93	2.44	2.76
27	2.45	3.00	4.10	2.49	7.79	4.09	4.38	2.91	2.73	3.25	2.44	2.72
28	2.40	2.85	3.47	2.62	5.95	5.75	3.91	2.81	2.87	3.75	2.42	2.64
29	2.38	2.78	4.08	2.82	-------	6.59	3.61	2.74	2.70	3.35	2.36	2.59
30	2.35	2.75	3.86	2.87	-------	6.19	3.54	2.68	3.37	3.10	2.32	2.64
31	2.40	-------	3.56	2.52	-------	6.32	-------	2.86	-------	2.93	2.24	-------

Note.—Stage-discharge relation Dec. 23 to Feb. 9 affected by ice.

CHEMUNG RIVER AT CORNING, N. Y.

Location.—At four-span steel highway bridge, Bridge Street, Corning, Steuben County, about one and three-quarter miles downstream from confluence of Cohocton and Tioga Rivers.

Drainage Area.—1,940 square miles.

Records Available.—December 1, 1909, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read to tenths once daily by C. H. Voorhees, Jr.; during high stages more frequently. Elevation of gage zero 912.82 feet, United States Geological Survey datum.

Channel and Control.—River is outlined by dykes which confine the flow to gage height 23.6 feet. Bed is composed of gravel.

Extremes of Stage.—Maximum gage height during the year, 14.5 feet observed at 8.10 a.m. February 12; minimum, 1.9 feet from 8 a.m. November 10 to 8 a.m. November 13.

Ice.—Stage-discharge relation usually affected by ice.

Gage heights obtained at this station for Flood Warning purposes.

Daily Mean Gage Height, in feet, of Chemung River at Corning, N. Y., for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.37	2.2	2.2	3.1	2.8	4.0	4.9	4.88	3.2	3.24	2.5	2.2
2	5.8	2.2	2.2	3.1	2.8	4.1	4.8	5.2	3.1	2.9	2.4	2.2
3	4.7	2.2	2.2	3.0	2.8	4.0	4.7	5.0	3.1	2.8	2.3	2.1
4	4.15	2.1	2.3	3.0	2.8	4.0	4.6	5.05	3.0	-------	2.3	2.1
5	3.9	2.1	2.3	2.9	2.8	4.0	4.5	5.9	2.9	3.47	2.3	2.1
6	3.65	2.0	2.2	2.9	2.8	3.7	4.1	4.9	2.8	3.1	2.7	2.1
7	3.3	2.0	2.2	2.8	2.8	3.5	4.0	4.6	2.7	3.0	2.7	-------
8	3.2	2.0	2.2	2.8	2.8	3.65	3.8	4.3	2.6	3.0	2.6	2.3
9	3.1	2.0	2.5	2.8	4.65	4.52	3.7	4.1	2.5	3.1	2.5	2.3
10	3.0	1.9	2.9	2.8	10.52	4.3	3.5	4.0	2.6	3.0	2.5	2.2
11	3.0	1.9	2.7	2.8	9.6	4.35	3.7	3.95	2.6	2.9	2.6	2.2
12	3.0	1.9	2.6	2.8	12.66	4.82	3.6	4.35	2.6	2.9	2.6	2.2
13	3.0	1.9	2.5	2.8	8.08	4.3	3.5	3.95	2.4	2.8	2.6	2.3
14	2.9	2.0	2.5	2.8	6.5	4.55	3.5	3.7	2.4	2.6	2.8	2.5
15	2.7	2.0	2.6	2.8	5.75	5.52	3.3	3.5	2.4	2.5	3.2	2.5
16	2.7	2.0	2.6	2.8	5.35	4.8	3.2	3.53	2.4	2.5	3.0	2.5
17	2.6	2.0	2.9	2.8	5.28	4.5	3.2	4.3	2.8	2.8	2.8	2.5
18	2.6	2.0	3.83	2.8	4.55	4.77	3.2	4.2	2.6	3.0	2.7	2.7
19	2.5	2.1	3.92	2.8	4.5	4.92	3.82	4.0	2.5	2.9	2.6	2.7
20	2.5	2.2	4.25	2.8	4.4	5.83	6.48	3.6	2.4	2.7	2.6	2.7
21	2.4	2.1	3.03	2.8	4.47	5.2	4.95	3.4	2.4	2.5	2.6	3.1
22	2.4	2.1	2.9	2.8	5.88	5.0	4.5	3.8	2.4	3.1	2.5	3.0
23	2.3	2.4	2.95	2.8	7.93	4.6	4.2	3.6	2.3	3.0	2.5	2.9
24	2.3	2.4	3.2	2.8	8.35	4.3	4.0	3.2	2.3	3.0	2.4	2.7
25	2.3	2.4	3.1	2.8	6.85	4.2	3.8	3.5	2.6	2.9	2.4	2.7
26	2.3	2.3	3.1	2.8	6.25	4.0	4.78	3.7	2.8	2.8	2.4	2.6
27	2.3	2.3	3.1	2.8	5.2	4.3	4.4	3.5	2.8	2.6	2.3	2.6
28	2.3	2.3	3.1	2.8	4.2	5.55	3.95	3.3	3.0	2.5	2.3	2.5
29	2.3	2.3	3.1	2.8	-------	5.0	3.8	3.2	3.2	2.5	2.3	2.5
30	2.3	2.2	3.1	2.8	-------	4.9	3.83	3.5	3.52	2.6	2.3	2.5
31	2.2	-------	3.1	2.8	-------	5.1	-------	3.3	-------	2.5	2.3	-------

Note.—Stage-discharge relation Nov. 19-22, Dec. 2-7, 14-16 and Dec. 22 to Feb. 10 affected by ice. Gage height July 4 and Sept. 7 not observed.

SUSQUEHANNA BASIN—STATION NO. 3

NORTH BRANCH SUSQUEHANNA RIVER AT TOWANDA

Location.—At four-span steel highway bridge, Bridge Street, Towanda, Bradford County.

Drainage Area.—7,770 square miles.

Records Available.—December 1, 1892, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Hiram E. Bull. Elevation of gage zero 693.4 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of gravel and rock. Control is at a riffle extending downstream from right end of bridge to island and from left side of island to left bank; changed during heavy ice flow of March 1920.

Extremes of Discharge.—Maximum stage during the year, 18.70 feet observed at 5.30 p.m. February 12 (discharge, 146,000 second-feet); minimum, 0.80 foot from 6 p.m. September 5 to 6 p.m. September 6 (discharge, 1,300 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation changed February 12, 1925, and also affected by ice. Two rating curves used; one applicable to February 12, 1925 and the other since that date. Rating curves fairly well defined between 800 and 20,000 second-feet and well defined from 20,000 to 167,000 second-feet. Gage read to half tenths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage heights to rating table. Results good.

The following discharge measurement was made by H. J. McIntyre: No. 33, May 18: Gage height, 2.97 feet; discharge 7,350 second-feet.

Daily Mean Gage Height, in feet, of North Branch Susquehanna River at Towanda, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16.12	1.27	1.82	3.40	2.20	4.90	5.75	3.60	2.22	2.88	1.95	1.02
2	13.45	1.27	1.72	3.40	2.20	4.30	5.65	4.28	2.18	2.90	1.78	.95
3	9.70	1.27	1.60	3.35	2.20	4.60	5.35	4.26	2.10	2.55	1.72	.90
4	6.08	1.24	1.60	3.15	2.20	4.02	5.00	3.92	2.00	2.35	1.65	.85
5	4.60	1.20	1.60	3.00	2.20	3.72	4.62	4.58	1.96	2.22	1.58	.82
6	4.02	1.18	1.55	2.85	2.20	3.70	4.28	4.90	1.88	2.45	1.55	.80
7	3.50	1.15	1.65	2.80	2.30	3.60	3.90	4.35	1.70	2.30	1.62	1.00
8	3.18	1.14	1.90	2.80	2.30	3.90	3.65	4.06	1.56	2.20	2.08	1.00
9	2.98	1.10	2.40	2.80	2.40	4.48	3.45	3.75	1.45	1.98	2.15	1.15
10	2.85	1.10	2.70	2.80	7.60	4.80	3.22	3.55	1.42	2.00	2.12	1.60
11	2.65	1.08	2.65	2.90	11.70	4.70	3.10	3.34	1.52	2.97	2.50	1.45
12	2.48	1.10	2.35	2.40	17.68	4.98	3.10	3.72	1.48	2.98	2.42	1.30
13	2.35	1.08	2.38	2.40	16.22	4.92	3.02	3.75	1.40	2.30	2.50	1.32
14	2.29	1.02	2.05	2.40	11.67	4.60	2.95	3.32	1.38	2.12	2.35	2.05
15	2.12	1.00	1.82	2.35	8.85	6.26	2.84	3.02	1.28	1.85	2.87	3.74
16	2.02	1.00	1.90	2.72	7.10	6.72	3.09	2.82	1.20	1.70	2.78	4.00
17	1.92	.90	1.94	2.33	6.10	5.70	3.26	2.72	1.20	1.66	2.28	3.88
18	1.88	.90	2.35	2.30	5.40	5.25	3.02	3.00	1.24	1.82	2.10	3.32
19	1.80	.90	2.99	2.40	4.70	6.02	2.88	2.85	1.59	2.05	1.88	2.92
20	1.76	.90	3.54	2.30	4.45	7.00	4.13	2.65	1.48	1.95	1.85	3.65
21	1.68	.90	3.41	2.30	4.25	5.98	6.00	2.45	1.32	1.75	1.78	2.80
22	1.61	1.18	2.93	2.30	4.80	5.12	5.25	2.28	1.20	1.78	1.62	2.72
23	1.60	1.64	4.03	2.30	7.05	4.62	4.45	2.20	1.15	2.35	1.60	2.55
24	1.56	3.58	3.95	2.30	10.48	4.22	4.00	2.12	1.05	3.12	1.58	2.32
25	1.52	3.25	3.75	2.20	10.00	3.92	3.78	2.22	1.22	2.70	1.48	2.08
26	1.50	2.80	3.60	2.20	9.00	3.80	4.15	2.38	1.15	2.30	1.38	2.00
27	1.48	2.42	4.00	2.30	8.05	3.70	4.40	2.42	1.35	2.02	1.28	1.90
28	1.44	2.18	3.70	2.30	5.65	4.66	3.80	2.35	1.82	2.45	1.20	1.80
29	1.38	2.05	3.55	2.30	-------	6.10	3.40	2.18	1.95	2.35	1.20	1.72
30	1.32	1.90	4.05	2.30	-------	5.85	3.20	2.18	2.02	2.36	1.12	1.65
31	1.28	-------	3.40	2.30	-------	5.78	-------	2.25	-------	2.25	1.02	-------

Note.—Stage-discharge relation Dec. 23 to Feb. 9 affected by ice.

Daily discharge, in second-feet, of North Branch Susquehanna River at Towanda, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	110,000	1,970	3,250	3,400	1,500	18,900	24,500	11,300	4,670	7,670	3,820	1,600
2	81,200	1,970	2,980	3,800	1,800	15,300	23,300	15,300	4,670	7,670	3,370	1,520
3	51,200	1,970	2,730	4,200	1,900	13,600	22,000	15,300	4,310	6,300	3,090	1,440
4	26,400	1,970	2,730	4,000	1,800	13,600	19,500	13,000	3,980	5,250	2,960	1,370
5	17,100	1,870	2,730	3,800	1,700	11,900	17,100	17,100	3,820	4,670	2,820	1,300
6	13,500	1,870	2,620	3,600	1,800	11,900	15,300	18,900	3,670	5,060	2,700	1,300
7	10,600	1,780	2,860	3,400	2,000	11,300	13,000	15,900	3,090	5,050	2,820	1,600
8	9,660	1,780	3,540	3,200	2,400	13,000	11,300	14,200	2,700	4,670	4,310	1,600
9	8,040	1,680	5,290	3,000	3,200	16,500	10,300	12,500	2,460	3,980	4,490	1,820
10	7,070	1,680	6,600	2,800	36,100	18,300	9,220	11,300	2,340	3,980	4,310	2,820
11	6,140	1,680	6,140	2,600	66,800	17,700	8,690	9,750	2,580	8,160	5,870	2,460
12	5,700	1,680	5,090	2,600	131,000	19,500	8,690	11,900	2,580	8,160	5,450	2,140
13	5,000	1,680	4,890	2,600	111,000	18,900	8,160	12,500	2,340	5,050	5,870	2,140
14	4,520	1,510	4,020	2,600	66,800	17,100	8,160	9,750	2,340	4,310	5,250	4,140
15	4,180	1,510	3,250	2,400	44,600	27,600	7,200	8,160	2,140	3,520	7,670	11,900
16	3,850	1,510	3,540	2,200	32,800	30,200	8,690	7,200	1,940	3,090	7,200	13,600
17	3,540	1,360	3,700	2,200	26,400	23,900	9,750	6,730	1,940	2,960	5,050	13,000
18	3,540	1,360	5,090	2,200	22,000	20,700	8,160	8,160	2,040	3,370	4,310	9,750
19	3,250	1,360	8,040	2,000	17,700	25,800	7,670	7,200	2,820	4,140	3,670	7,670
20	3,120	1,360	10,600	2,000	15,900	32,200	14,200	6,300	2,580	3,820	3,520	6,300
21	2,980	1,360	10,100	1,900	14,700	25,800	25,800	5,660	2,140	3,230	3,370	7,200
22	2,730	1,870	7,550	1,900	18,300	20,100	20,700	5,050	1,940	3,370	2,820	6,730
23	2,730	2,860	6,000	1,900	32,200	17,100	15,900	4,670	1,860	5,250	2,820	6,300
24	2,620	11,200	4,600	1,800	57,300	14,700	13,600	4,310	1,680	8,690	2,820	5,050
25	2,500	9,060	3,890	1,700	53,500	13,000	12,500	4,670	1,940	6,730	2,580	4,310
26	2,500	7,070	3,200	1,700	46,000	12,500	14,700	5,450	1,860	5,050	2,340	3,980
27	2,500	5,290	3,200	1,600	38,900	11,900	15,900	5,450	2,240	3,980	2,140	3,670
28	2,390	4,520	3,000	1,500	23,300	17,700	12,500	5,250	3,370	5,660	1,940	3,370
29	2,280	4,020	3,000	1,500	-------	26,400	10,300	4,670	3,820	5,250	1,940	3,090
30	2,070	3,540	3,000	1,500	-------	24,500	9,220	4,670	3,980	5,250	1,770	2,960
31	2,070	-------	3,200	1,400	-------	24,500	-------	4,860	-------	4,860	1,600	-------

Note.—Discharge Dec. 13 to Feb. 9 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for North Branch Susquehanna River at Wilkes-Barre.

Monthly discharge of North Branch Susquehanna River at Towanda, for the year ending September 30, 1925.

(Drainage area 7,770 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	111,000	2,070	13,000	1.67	1.92
November	11,200	1,360	2,810	.362	.40
December	10,600	2,620	4,530	.583	.67
January	4,200	1,400	2,480	.319	.37
February	131,000	1,500	31,200	4.02	4.19
March	32,200	11,300	18,900	2.43	2.80
April	25,800	7,200	13,500	1.74	1.94
May	18,900	4,310	9,260	1.19	1.37
June	4,670	1,680	2,790	.359	.40
July	8,690	2,960	5,120	.659	.76
August	7,670	1,600	3,700	.476	.55
September	13,600	1,300	4,540	.584	.65
The Year	131,000	1,300	9,180	1.18	16.02

SUSQUEHANNA BASIN—STATION NO. 4

TOWANDA CREEK NEAR MONROETON

Location.—At single-span steel highway bridge about one and a half miles southwest of Monroeton, Bradford County.

Drainage Area.—218 square miles.

Records Available.—January 30, 1914, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Leon D. Pepper.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Neither bank is subject to overflow. Bed is composed of coarse gravel. Control consists of the foundation timbers of an old wooden dam and a gravel bar which probably shifts.

Extremes of Discharge.—Maximum stage during the year, 7.25 feet observed at 5 p.m. February 11 (discharge, about 9,500 second-feet); minimum, 1.48 feet at 7 a.m. September 3 (discharge, 15 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. A new rating curve was used which may be applicable for high stages since the establishment of the station and for low gage heights subsequent to April 6, 1924.

Rating curve is well defined below 500 second-feet and fairly well defined from 500 to 2,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for high stages when they are fair.

Discharge measurements of Towanda Creek near Monroeton, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
31	May 17	H. J. McIntyre	3.16	492
32	17	do	3.16	465

Daily Mean Gage Height, in feet, of Towanda Creek near Monroeton, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr	May	June	July	Aug.	Sept.
1	4.45	1.98	2.81	3.02	2.90	2.79	2.98	2.52	2.45	2.15	2.04	1.52
2	3.52	1.97	2.85	3.02	2.92	2.66	2.98	2.80	2.84	2.07	2.04	1.51
3	3.08	1.94	2.88	3.02	2.98	2.66	3.00	2.66	3.36	2.06	1.93	1.49
4	2.88	1.94	2.76	3.19	3.06	2.62	2.96	2.63	2.87	1.96	1.88	1.52
5	2.68	1.95	2.65	3.18	3.10	2.46	2.86	2.98	2.60	2.09	1.86	1.50
6	2.59	1.99	2.95	3.10	3.12	2.45	2.76	2.78	2.44	2.14	1.84	1.50
7	2.51	2.02	3.07	3.04	3.30	2.61	2.70	2.68	2.32	2.34	1.99	1.72
8	2.46	2.06	3.18	3.10	3.58	2.81	2.64	2.61	2.25	2.58	1.90	1.74
9	2.43	2.08	3.49	2.97	4.37	2.82	2.56	2.54	2.23	2.34	1.97	1.66
10	2.40	2.15	3.40	2.96	5.72	2.74	2.54	2.47	2.18	2.18	2.10	1.52
11	2.34	2.19	3.22	3.04	6.07	2.83	2.68	2.86	2.09	2.22	1.94	1.56
12	2.39	2.14	3.30	3.00	5.18	2.82	2.58	2.98	2.02	2.04	1.84	1.56
13	2.30	2.16	3.21	2.98	3.95	2.70	2.50	2.78	1.97	1.94	1.82	1.86
14	2.22	2.16	3.39	2.92	3.55	2.74	2.45	2.69	1.92	1.88	1.92	2.30
15	2.21	2.18	3.16	2.82	3.40	2.81	2.45	2.60	1.90	1.84	1.91	2.10
16	2.18	2.18	3.22	2.96	3.30	2.68	2.44	2.58	2.06	1.86	1.84	2.48
17	2.16	2.24	3.16	3.04	3.15	2.73	2.38	2.99	1.96	2.26	1.78	2.22
18	2.13	2.40	3.31	3.02	2.92	3.08	2.34	2.88	1.90	2.16	1.75	2.07
19	2.12	2.22	3.48	2.92	2.89	3.38	2.32	2.75	1.84	1.98	1.72	1.98
20	2.10	2.19	3.48	2.90	2.75	3.12	2.36	2.65	1.83	1.91	2.05	1.93
21	2.09	2.18	3.38	2.92	2.72	2.98	2.29	2.56	1.78	1.88	2.03	2.00
22	2.08	3.11	3.40	2.94	2.96	2.87	2.26	2.48	1.76	2.63	1.92	1.94
23	2.08	3.60	3.52	2.87	3.49	2.76	2.24	2.42	1.83	2.62	1.84	1.88
24	2.08	3.29	3.73	2.95	3.54	2.69	2.21	2.65	1.80	2.30	1.78	1.84
25	2.06	3.23	3.64	2.90	3.26	2.66	2.19	3.19	1.98	2.16	1.73	1.80
26	2.04	3.03	3.04	2.91	3.22	2.60	2.30	3.18	1.98	2.09	1.66	1.74
27	2.04	3.00	3.06	3.08	3.08	2.63	2.29	2.94	1.86	2.11	1.61	1.74
28	2.02	2.98	3.32	3.04	2.96	3.34	2.24	2.79	1.92	2.04	1.58	1.72
29	2.02	2.92	3.32	3.00	-------	3.23	2.20	2.71	2.22	2.10	1.59	1.71
30	2.02	2.90	3.42	2.88	-------	3.09	2.24	2.72	2.50	2.09	1.55	1.72
31	2.02	-------	3.27	2.88	-------	3.07	-------	2.55	-------	2.00	1.52	-------

Note.—Stage-discharge relation Nov. 17, 18, and Nov. 25 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of Towanda Creek near Monroeton, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,120	43	90	120	65	264	382	149	129	64	50	15
2	800	42	80	140	90	199	382	270	294	53	50	15
3	465	39	80	150	95	199	395	199	662	52	38	15
4	318	39	80	150	80	183	369	187	312	41	33	15
5	207	40	80	140	70	132	306	382	175	56	32	15
6	172	44	90	130	70	129	248	259	126	63	30	15
7	146	47	100	120	90	179	215	207	96	93	44	22
8	132	52	130	110	280	276	191	179	82	169	35	23
9	123	55	200	100	1,940	282	162	156	78	101	42	19
10	115	64	220	95	5,040	237	156	135	69	69	57	18
11	101	70	200	90	6,100	288	207	306	56	76	39	16
12	113	63	140	85	3,700	282	169	382	47	50	30	16
13	91	66	130	80	1,330	215	143	259	42	39	29	32
14	76	66	100	80	850	237	129	211	37	33	37	91
15	74	69	90	75	705	276	129	175	35	30	36	57
16	69	69	90	70	620	207	126	169	52	32	30	137
17	66	70	110	70	502	232	110	388	41	83	26	76
18	62	70	140	70	343	465	101	318	35	66	24	53
19	60	76	240	70	324	705	96	242	30	43	22	43
20	57	70	340	65	242	465	105	195	29	36	51	38
21	56	69	300	65	226	382	89	162	26	33	49	45
22	55	465	220	65	369	312	83	137	25	187	37	39
23	55	900	170	65	800	248	80	121	29	183	30	33
24	55	620	140	65	850	211	74	195	27	91	26	30
25	52	400	120	60	580	199	70	540	43	66	23	27
26	50	260	110	60	540	175	91	540	43	56	19	23
27	50	180	100	60	465	187	89	356	32	58	17	23
28	47	140	95	60	369	662	74	264	37	50	17	22
29	47	130	90	60	-------	580	72	220	76	57	17	22
30	47	100	95	55	-------	465	80	226	143	56	16	22
31	47	-------	100	55	-------	430	-------	159	-------	45	15	-------

Note.—Discharge Nov. 17, 18 and Nov. 25 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Chemung River at Corning, North Branch Susquehanna River at Towanda, Lackawanna River at Moosic, Fishing Creek at Bloomsburg and Lycoming Creek near Trout Run.

Monthly discharge of Towanda Creek near Monroeton, for the year ending September 30, 1925. (Drainage area 218 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	2,120	47	191	0.876	1.01
November	900	39	147	.674	.75
December	340	80	138	.633	.73
January	150	55	86.5	.397	.46
February	5,100	65	958	4.39	4.57
March	705	129	300	1.38	1.59
April	395	70	164	.752	.84
May	540	121	243	1.14	1.31
June	662	25	96.9	.444	.50
July	187	30	68.7	.315	.36
August	57	15	22.3	.148	.17
September	137	15	22.9	.156	.17
The Year	6,100	15	200	.917	12.46

SUSQUEHANNA BASIN—STATION NO. 5

TUNKHANNOCK CREEK AT DIXON

Location.—At single-span steel highway bridge, about two miles east of Tunkhannock, at Dixon, Wyoming County.

Drainage Area.—393 square miles.

Records Available.—January 28, 1914, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by N. L. Kneller.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—The right bank is high, steep, and does not overflow; the left is low but not subject to overflow. Bed is composed of coarse gravel. Control is at a riffle, where the bed is composed of boulders, about 300 feet downstream from the gage; permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 11.3 feet at 8 p.m. February 11 (discharge, about 14,400 second-feet); minimum, 1.14 feet at 5 p.m. August 30 (discharge, 43 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 30 and 4,000 second-feet. Gage read to half tenths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

Discharge measurements of Tunkhannock Creek at Dixon, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
35	May 16	J. M. Snavely	2.13	310
36	16	do	2.16	327

Daily Mean Gage Height, in feet, of Tunkhannock Creek at Dixon, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.28	1.57	1.91	1.88	1.91	2.78	3.60	2.32	1.84	1.49	1.96	1.24
2	4.70	1.56	1.86	1.91	2.02	2.92	3.55	2.24	2.29	1.49	1.86	1.26
3	3.78	1.51	1.82	1.82	1.98	2.61	3.42	2.21	2.26	1.52	1.69	1.22
4	3.28	1.52	1.83	1.80	2.02	2.56	3.18	2.08	1.99	1.46	1.59	1.19
5	2.95	1.52	1.76	1.81	1.98	2.52	3.00	2.08	1.86	2.04	1.69	1.22
6	2.72	1.51	1.92	1.88	2.09	2.51	2.80	2.00	1.74	1.96	1.69	1.19
7	2.55	1.50	2.08	1.88	2.08	2.77	2.65	1.95	1.59	2.07	2.04	1.49
8	2.49	1.49	2.22	1.78	2.08	2.82	2.58	1.90	1.52	2.49	1.95	1.56
9	2.38	1.45	2.14	1.82	2.28	2.85	2.42	1.90	1.76	2.16	4.34	1.42
10	2.26	1.44	2.10	1.85	5.38	2.78	2.38	1.85	2.04	1.89	4.11	1.32
11	2.18	1.45	1.98	1.80	8.84	2.80	2.48	2.40	1.79	2.19	2.89	1.24
12	2.08	1.45	1.92	1.74	8.43	3.05	2.28	3.02	1.62	1.92	2.46	1.32
13	2.02	1.44	1.99	1.66	5.00	2.78	2.22	2.58	1.49	1.76	2.36	2.20
14	1.98	1.48	2.08	1.72	4.07	2.86	2.18	2.40	1.46	1.62	3.14	3.82
15	1.92	1.49	2.02	1.82	4.05	3.08	2.40	2.30	1.52	1.59	2.62	3.12
16	1.88	1.51	2.02	1.84	4.25	2.78	2.35	2.17	1.62	2.03	2.32	3.72
17	1.82	1.41	1.98	1.88	3.90	2.78	2.22	2.66	1.54	2.84	2.04	3.06
18	1.76	1.45	2.67	1.82	3.40	3.02	2.15	2.42	1.44	2.46	1.94	2.64
19	1.78	1.46	2.92	1.75	3.20	3.20	2.12	2.29	1.39	1.94	1.84	2.42
20	1.72	1.39	2.75	1.81	3.08	3.00	2.70	2.14	1.35	1.79	1.82	2.22
21	1.68	1.39	2.38	1.85	3.05	2.75	2.35	2.04	1.26	1.76	1.89	2.46
22	1.66	2.06	2.12	1.82	3.38	2.65	2.22	2.02	1.34	3.03	1.74	2.29
23	1.64	3.24	2.24	1.81	3.92	2.52	2.20	1.94	1.32	3.22	1.69	2.09
24	1.61	2.60	2.28	1.81	4.08	2.48	2.19	2.14	1.29	2.54	1.59	2.06
25	1.62	2.38	2.22	1.80	3.60	2.40	2.08	2.62	1.44	2.32	1.49	1.94
26	1.59	2.24	2.15	1.85	3.38	2.34	2.22	2.34	1.62	2.26	1.49	1.86
27	1.58	2.12	2.15	1.88	2.95	2.45	2.15	2.16	1.46	2.52	1.42	1.72
28	1.59	2.02	2.05	1.80	2.72	3.93	2.02	2.04	1.42	2.22	1.34	1.82
29	1.58	2.00	1.95	1.81	-------	3.75	1.95	1.99	1.46	2.19	1.24	1.74
30	1.56	1.92	1.91	1.84	-------	3.58	2.00	2.04	1.54	2.04	1.19	1.72
31	1.56	-------	1.92	1.89	-------	3.78	-------	1.92	-------	1.92	1.29	-------

Note.—Stage-discharge relation Dec. 13-16, 23-28, Jan. 9-12 and Jan. 15 Feb. 8 affected by ice.

Daily discharge, in second-feet, of Tunkhannock Creek at Dixon, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,130	104	212	200	110	700	1,320	395	185	88	233	58
2	2,450	102	192	212	140	770	1,320	370	395	88	192	55
3	1,500	92	177	177	170	570	1,150	345	370	94	132	50
4	1,070	94	177	169	170	540	990	295	246	83	108	47
5	805	94	155	173	150	510	840	295	192	272	132	50
6	630	92	216	200	140	510	700	250	149	233	132	47
7	540	90	295	200	140	665	600	229	108	272	272	88
8	510	88	345	162	150	700	570	208	94	510	229	102
9	450	82	320	150	395	735	450	208	155	320	2,010	76
10	370	80	295	140	3,300	700	450	188	272	204	1,800	62
11	345	82	242	140	8,850	700	510	450	166	345	770	52
12	295	82	216	120	8,000	875	395	840	115	216	480	62
13	250	80	200	125	2,800	700	345	570	88	155	422	345
14	240	87	200	142	1,800	735	345	450	83	115	950	1,500
15	216	88	200	110	1,700	910	450	395	91	108	570	910
16	200	92	200	110	1,900	700	422	320	115	272	395	1,410
17	177	75	242	110	1,600	700	345	600	98	735	272	875
18	155	82	600	110	1,150	840	320	450	80	320	225	600
19	162	83	770	100	990	990	295	395	72	225	185	450
20	142	72	665	100	910	840	630	320	66	166	177	345
21	130	72	450	90	875	665	422	272	55	155	204	480
22	125	272	295	90	1,150	660	345	250	65	875	149	395
23	120	1,030	300	90	1,600	510	345	225	62	990	132	295
24	112	570	280	85	1,800	510	345	320	58	540	108	272
25	115	450	260	80	1,320	450	295	570	80	395	88	225
26	108	370	260	80	1,150	422	345	422	115	370	88	192
27	106	295	260	85	805	480	320	320	83	510	76	142
28	108	250	240	90	630	1,600	250	272	76	345	65	177
29	106	250	229	90	-------	1,500	229	246	83	345	52	149
30	102	216	212	90	-------	1,320	250	272	98	272	47	142
31	102	-------	216	90	-------	1,500	-------	216	-------	216	38	-------

Note.—Discharge Dec. 13-16, 23-28, Jan. 9-12 and Jan. 15 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Towanda Creek near Monroeton, Lackawanna River at Moosic and Lycoming Creek near Trout Run.

Monthly discharge of Tunkhannock Creek at Dixon, for the year ending September 30, 1925. (Drainage area 393 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	6,130	102	577	1.47	1.70
November	1,030	72	184	.468	.52
December	770	155	288	.733	.85
January	212	80	126	.321	.37
February	8,850	110	1,570	3.99	4.16
March	1,600	422	772	1.96	2.26
April	1,320	229	520	1.32	1.47
May	840	188	353	.898	1.04
June	395	55	131	.333	.37
July	990	83	317	.807	.93
August	2,010	47	347	.883	1.02
September	1,500	47	322	.819	.91
The Year	8,850	47	452	1.15	15.60

SUSQUEHANNA BASIN—STATION NO. 6

LACKAWANNA RIVER AT MOOSIC

Location.—At single-span steel highway bridge, River Street or Moosic Road, Moosic, Lackawanna County.

Drainage Area.—265 square miles.

Records Available.—August 8, 1913, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Mrs. Margaret Ross.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of culm and rocks. Control for low stages is at a slight riffle about 50 feet downstream from the gage; for medium and high stages at a pronounced riffle about 1,000 feet downstream; occasionally shifting.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 7.8 feet at midnight September 30-October 1, 1924 when the stream was falling (discharge, about 7,930 second-feet); a stage of 6.7 feet, estimated from hydrograph, was reached at midnight February 11-12 (discharge, about 5,580 second-feet); minimum, 1.86 feet at 5 p.m. September 6 (discharge, 138 second-feet).

Ice.—Stage-discharge relation rarely affected by ice.

Accuracy.—Stage-discharge relation probably permanent. Rating curve fairly well defined between 100 and 4,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

Discharge measurements of Lackawanna River at Moosic, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec. ft.
41	Nov. 12	C. K. Weigle	2.04	151
42	May 19	H. J. McIntyre	2.58	430

Daily Mean Gage Height, in feet, of Lackawanna River at Moosic, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.69	2.01	2.10	2.12	2.01	2.75	3.11	2.33	2.50	2.03	2.45	1.99
2	4.05	1.96	2.16	2.05	2.14	2.93	3.13	2.54	3.10	2.07	2.31	1.91
3	3.40	2.01	2.16	2.14	2.10	2.74	3.24	2.47	2.70	2.05	2.25	1.98
4	3.05	2.01	2.10	2.10	2.02	2.65	3.19	2.44	2.60	1.95	2.21	2.00
5	2.80	2.02	2.11	2.12	2.01	2.59	3.07	2.33	2.46	2.59	2.21	1.94
6	2.66	2.01	2.10	2.13	2.14	2.57	2.95	2.33	2.33	2.44	2.24	1.87
7	2.58	2.06	2.16	2.12	2.12	2.59	2.93	2.35	2.23	2.26	2.20	2.18
8	2.49	1.99	2.21	2.10	2.09	2.63	2.77	2.33	2.17	2.65	2.19	1.97
9	2.42	2.01	2.29	2.15	2.52	2.70	2.69	2.28	2.68	2.46	2.35	1.94
10	2.38	1.99	2.26	2.08	3.62	2.72	2.67	2.33	2.68	2.33	2.50	2.01
11	2.32	2.00	2.21	2.09	5.72	2.71	2.59	3.16	2.42	2.45	2.57	2.05
12	2.27	2.02	2.20	2.09	6.03	3.06	2.56	3.06	2.28	2.37	2.32	2.09
13	2.28	2.01	2.15	2.09	4.49	2.75	2.51	2.91	2.22	2.28	2.29	2.20
14	2.21	2.09	2.15	2.07	3.89	2.76	2.45	2.71	2.12	2.19	2.68	3.06
15	2.18	2.01	2.13	2.08	3.82	2.97	2.72	2.70	2.13	2.14	2.61	2.77
16	2.19	2.00	2.14	2.07	3.72	2.82	2.57	2.60	2.46	2.12	2.47	3.05
17	2.20	2.00	2.24	2.10	3.55	2.79	2.47	2.90	2.20	2.26	2.37	2.78
18	2.37	2.01	2.39	2.04	3.17	2.76	2.43	2.65	2.15	2.22	2.26	2.56
19	2.05	2.01	2.62	2.05	3.13	3.27	2.65	2.59	2.08	2.16	2.24	2.39
20	2.17	2.00	2.59	2.06	3.02	3.05	2.74	2.49	2.06	2.14	2.22	2.27
21	2.08	2.00	2.31	2.13	2.96	2.92	2.58	2.43	2.01	2.17	2.24	2.47
22	2.07	2.44	2.25	2.08	2.96	2.76	2.51	2.37	2.09	2.82	2.22	2.30
23	2.06	2.67	2.27	2.09	3.29	2.74	2.49	2.41	2.01	2.74	2.22	2.12
24	2.07	2.52	2.29	2.03	3.52	2.64	2.59	2.79	2.00	2.48	2.13	2.19
25	2.04	2.35	2.28	1.96	3.42	2.62	2.47	3.41	2.02	2.38	2.10	2.10
26	1.99	2.32	2.14	2.05	3.47	2.56	2.44	3.09	2.05	2.35	2.04	2.05
27	2.00	2.26	2.13	2.10	3.22	2.69	2.50	2.86	2.00	2.55	2.08	2.03
28	2.03	2.19	2.10	2.04	2.90	3.07	2.48	2.70	1.99	3.04	2.00	2.09
29	2.00	2.24	2.14	2.03	-------	2.99	2.40	2.64	2.22	2.80	2.00	2.08
30	2.22	2.10	2.16	2.01	-------	2,94	2.43	2.60	2.10	2.36	2.00	2.03
31	2.21	-------	2.19	2.00	-------	3.03	-------	2.48	-------	2.36	2.02	-------

Daily discharge, in second-feet, of Lackawanna River at Moosic, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,770	190	224	232	190	551	795	323	407	197	382	182
2	1,600	172	249	205	240	684	836	434	795	213	314	154
3	1,050	190	249	240	224	551	918	392	520	205	287	179
4	757	190	224	224	194	491	876	376	462	168	269	186
5	582	194	228	232	190	462	757	323	387	462	269	165
6	491	190	224	236	240	434	684	323	323	376	283	141
7	462	209	249	232	232	462	684	332	278	291	265	257
8	402	182	269	224	220	491	551	323	253	491	261	176
9	366	190	305	244	407	520	520	300	520	387	332	165
10	347	182	291	216	1,230	520	491	323	520	323	407	190
11	318	186	269	220	3,770	520	462	836	366	382	434	205
12	296	194	265	220	4,270	757	434	757	300	342	318	220
13	300	190	244	220	2,110	551	407	648	274	300	305	295
14	269	220	244	213	1,500	551	382	520	252	261	520	757
15	257	190	236	216	1,410	684	520	520	236	240	462	551
16	261	186	240	213	1,320	582	434	462	387	252	392	757
17	265	186	283	224	1,230	582	392	648	265	291	342	582
18	342	190	351	201	836	551	371	491	244	274	291	434
19	205	190	462	205	836	918	491	462	216	249	283	351
20	253	186	462	209	719	757	551	402	209	240	274	296
21	216	186	314	236	684	648	462	371	190	253	283	392
22	213	376	287	216	684	551	407	342	220	582	274	309
23	209	491	296	220	961	551	402	361	190	551	274	232
24	213	407	305	197	1,140	491	462	582	186	397	236	261
25	201	332	300	172	1,050	462	392	1,050	194	347	224	224
26	182	318	240	205	1,100	434	376	795	205	332	201	205
27	186	291	236	224	876	520	407	615	186	434	216	197
28	197	261	224	201	648	757	397	520	182	757	186	220
29	186	283	240	197	-------	719	356	491	274	582	186	216
30	274	224	249	190	-------	684	371	462	224	337	186	197
31	269	-------	261	186	-------	757	-------	397	-------	337	194	-------

Monthly discharge of Lackawanna River at Moosic, for the year ending September 30, 1925.

(Drainage area 265 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	3,770	182	482	1.82	2.10
November	491	172	233	.879	.98
December	462	224	275	1.04	1.20
January	244	172	217	.811	.94
February	4,270	190	1,030	3.85	4.01
March	918	434	587	2.21	2.56
April	918	356	520	1.96	2.19
May	1,050	300	490	1.85	2.13
June	795	182	308	1.16	1.29
July	757	168	349	1.32	1.52
August	520	186	295	1.11	1.28
September	757	141	289	1.09	1.22
The Year	4,270	141	418	1.58	21.42

SUSQUEHANNA BASIN—STATION NO. 7

NORTH BRANCH SUSQUEHANNA RIVER AT WILKES-BARRE

Location.—At four-span steel highway bridge, Market Street, Wilkes-Barre, Luzerne County.

Drainage Area.—9,960 square miles.

Records Available.—November 1, 1890, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by Milton Wentz. Elevation of gage zero 511.03 feet, United States Geological Survey datum.

Discharge Measurements.—Made from upstream side of bridge, except during extremely high stages when they are taken from the Port Bowkley railroad bridge, where the entire discharge of the stream is confined to one channel.

Channel and Control.—Right bank is low and subject to overflow at a stage of about 18.5 feet; left bank subject to overflow only at extremely high stages. Bed is composed of culm, sand and gravel. Control for low stages is at a riffle about 4,000 feet downstream from the gage; occasionally shifting. For high stages the control is probably the dam at Nanticoke, 9 miles downstream from the gage.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 25.1 feet at 4 a.m. February 13 (discharge 145,000 second-feet); minimum, 2.34 feet at noon September 6 (discharge, 1,740 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation probably permanent except when affected by ice. Rating curve well defined between 1,300 and 160,00 second-feet. Gage read to hundredths once daily; during high stages more frequently. Daily discharge ascertained by applying to rating table daily mean gage height, computed from a continuous hydrograph, obtained by plotting gage readings. Results good.

The following discharge measurement was made by J. M. Snavely: No. 64, May 18: Gage height, 5.48 feet; discharge, 9,670 second-feet.

Daily Mean Gage Height, in feet, of North Branch Susquehanna River at Wilkes-Barre, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	21.74	2.96	3.70	4.03	2.50	9.64	9.81	5.77	4.49	3.80	4.21	2.52
2	21.31	2.92	3.52	3.84	2.90	8.40	9.77	6.15	4.70	4.80	3.94	2.48
3	17.00	2.80	3.40	4.01	3.17	7.44	9.51	6.64	4.82	5.14	3.62	2.44
4	13.43	2.84	3.36	3.94	2.91	6.90	9.09	6.97	4.70	4.88	3.47	2.42
5	9.02	2.80	3.22	3.80	2.74	6.70	8.51	6.80	4.30	4.60	3.40	2.36
6	7.00	2.77	3.50	3.60	2.91	6.47	8.00	7.39	4.00	4.49	3.30	2.34
7	6.70	2.70	3.46	3.48	2.98	6.51	7.47	7.69	3.67	4.38	3.23	2.38
8	6.10	2.70	3.34	3.37	3.03	6.78	6.70	7.00	3.52	4.32	3.10	2.47
9	5.70	2.65	3.70	3.28	3.07	7.00	6.29	6.79	3.44	4.50	3.78	2.50
11	5.12	2.60	4.83	3.16	16.00	8.03	5.80	6.11	3.26	3.87	4.43	2.42
12	4.88	2.60	4.74	3.13	23.61	8.10	5.68	6.44	3.14	4.40	4.53	3.10
13	4.72	2.55	4.64	3.10	24.43	8.50	5.59	6.66	3.04	5.20	4.55	3.18
14	4.53	2.50	4.51	3.02	26.00	8.40	5.57	6.59	3.02	4.50	4.48	3.50
15	4.36	2.50	4.34	2.97	15.82	9.82	5.40	5.99	3.00	4.04	4.60	4.40
16	4.18	2.46	3.80	2.84	13.21	10.50	5.41	5.58	3.00	3.67	4.91	6.45
17	4.09	2.44	3.50	2.80	11.40	10.10	5.50	5.30	2.97	3.61	4.92	6.89
18	3.90	2.48	3.80	2.80	9.90	9.30	5.78	5.49	2.90	3.52	4.40	6.40
19	3.74	2.47	4.40	2.78	8.90	9.24	5.59	5.71	2.79	3.50	4.00	6.50
20	3.66	2.41	5.80	2.70	8.30	10.68	5.55	5.40	2.74	3.64	3.74	5.13
21	3.60	2.36	6.50	2.64	8.12	10.70	8.07	5.14	2.81	3.60	3.09	4.82
22	3.51	2.59	5.80	2.60	7.86	9.43	9.27	4.82	3.00	3.80	3.52	4.64
23	3.41	3.38	4.40	2.56	8.80	8.50	8.20	4.48	2.91	4.60	3.32	4.80
24	3.34	4.13	4.10	2.48	12.13	7.80	7.38	4.36	2.84	4.40	3.20	4.60
25	3.30	6.38	4.70	2.66	15.32	7.30	6.91	4.70	2.71	5.40	3.12	4.20
10	5.21	2.65	4.30	3.19	6.00	7.72	6.01	6.34	3.35	4.09	4.60	2.44
26	3.24	3.00	5.10	2.78	14.32	6.80	6.84	4.87	2.66	5.18	3.09	3.88
27	3.19	5.20	5.50	2.89	13.43	6.49	7.07	5.02	2.61	4.60	3.08	3.66
28	3.13	4.60	5.24	2.71	10.42	7.20	7.07	5.00	2.65	4.34	2.94	3.51
29	3.09	4.20	4.80	2.52	-------	9.40	6.31	4.68	3.10	4.28	2.72	3.23
30	3.10	4.04	4.53	2.44	-------	10.22	5.79	4.50	3.50	4.60	2.64	3.18
31	3.00	-------	4.22	2.36	-------	9.88	-------	4.57	-------	4.42	2.60	-------

Note.—Stage-discharge relation Dec. 25 to Jan. 1 and Jan. 25 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of North Branch Susquehanna River at Wilkes-Barre, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	111,000	2,860	4,390	4,000	1,800	27,700	28,700	11,300	6,600	4,640	5,700	1,960
2	107,000	2,660	3,920	4,640	2,200	22,200	28,700	12,900	7,250	7,580	4,890	1,960
3	70,000	2,600	3,700	5,150	2,200	17,800	27,200	14,500	7,580	8,630	4,150	1,880
4	41,500	2,470	3,700	4,890	2,200	15,700	25,400	16,100	7,250	7,920	3,920	1,810
5	25,000	2,470	3,270	4,640	2,000	14,900	22,700	15,300	5,990	6,920	3,700	1,740
6	19,100	2,470	3,920	4,150	2,200	14,100	20,400	17,800	5,150	6,600	3,480	1,740
7	14,900	2,290	3,920	3,920	2,200	14,100	18,200	19,100	4,390	6,290	3,270	1,810
8	12,500	2,290	3,480	3,700	2,400	15,300	14,900	16,100	3,920	5,990	3,060	1,880
9	10,900	2,200	4,390	3,480	3,060	16,100	13,300	15,300	3,700	6,600	4,640	1,960
10	9,000	2,200	5,990	3,270	12,100	19,100	12,100	13,300	3,700	5,420	6,920	1,880
11	8,630	2,120	7,580	3,270	62,400	20,400	11,300	12,500	3,480	4,890	6,290	1,810
12	7,920	2,120	7,250	3,060	130,000	20,900	10,900	13,700	3,060	6,290	6,600	3,060
13	7,250	2,040	6,920	3,060	138,000	22,700	10,500	14,900	2,860	9,000	6,920	3,270
14	6,600	1,960	6,600	2,860	95,400	22,200	10,500	14,500	2,860	6,600	6,600	3,920
15	6,290	1,960	5,990	2,860	60,900	28,700	9,750	12,100	2,800	5,150	6,920	6,290
16	5,700	1,880	4,640	2,470	45,700	32,000	9,750	10,500	2,860	4,390	7,920	13,700
17	5,420	1,880	3,920	2,470	36,400	30,100	10,100	9,750	2,860	4,150	7,920	15,700
18	4,890	1,960	4,640	2,470	29,100	26,300	11,300	10,100	2,660	3,920	6,290	13,700
19	4,390	1,880	6,290	2,470	24,500	25,900	10,500	10,900	2,470	3,920	5,150	14,100
20	4,390	1,810	11,300	2,290	21,800	33,000	10,500	9,750	2,290	4,150	4,390	8,630
21	4,150	1,740	14,100	2,200	20,900	33,000	20,900	8,630	2,470	4,150	4,150	7,580
22	3,920	2,120	11,300	2,120	20,000	26,800	26,300	7,580	2,800	4,640	3,920	6,920
23	3,700	3,700	6,290	2,040	24,000	22,700	21,400	6,600	2,660	6,920	3,480	7,580
24	3,480	5,420	5,420	1,960	40,000	19,600	17,800	6,290	2,470	6,290	3,270	6,920
25	3,480	13,700	4,800	1,900	57,500	17,400	15,700	7,250	2,290	9,750	3,060	5,700
26	3,270	12,100	4,200	1,900	51,500	15,300	15,300	7,920	2,200	9,000	3,060	4,890
27	3,270	9,000	4,000	1,900	46,700	14,100	16,500	8,270	2,120	6,920	2,860	4,390
28	3,060	6,920	3,800	1,800	31,500	17,000	16,500	8,270	2,200	5,990	2,660	3,920
29	3,060	5,700	3,400	1,800	-------	26,800	13,300	7,250	3,060	5,990	2,290	3,270
30	3,060	5,150	3,600	1,800	-------	30,600	11,300	6,600	3,920	6,920	2,200	3,070
31	2,860	-------	3,800	1,740	-------	29,100	-------	6,920	-------	6,290	2,120	-------

Note.—Discharge Dec. 25 to Jan. 1 and Jan. 25 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for North Branch Susquehanna River at Danville.

Monthly discharge of North Branch Susquehanna River at Wilkes-Barre, for the year ending September 30, 1925.

(Drainage area 9,960 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	111,000	2,860	16,800	1.69	1.95
November,	13,700	1,740	3,660	.367	.41
December,	14,100	3,270	5,500	.551	.64
January,	5,150	1,740	2,910	.292	.34
February,	138,000	1,800	34,600	3.47	3.61
March,	33,000	14,100	22,300	2.24	2.58
April,	28,700	9,750	16,400	1.65	1.84
May,	19,100	6,290	11,400	1.15	1.33
June,	7,580	2,120	3,670	.368	.41
July,	9,750	3,920	6,190	.621	.72
August,	7,920	2,120	4,570	.459	.53
September,	15,700	1,740	5,240	.526	.59
The Year,	138,000	1,740	10,900	1.09	14.95

WAPWALLOPEN CREEK NEAR WAPWALLOPEN

Location.—At single-span steel highway bridge, known as Harts Bridge, three and one-half miles southeast of Wapwallopen, Luzerne County, and three and one-half miles upstream from mouth of creek.

Drainage Area.—46 square miles.

Records Available.—October 24, 1919, to Septeber 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Calvin P. Readler.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Left bank is high and not subject to overflow; right is of medium height and becomes inundated during extremely high stages. Bed is composed of gravel and boulders. Control is at a riffle about 1,000 feet downstream from the gage, where bed is composed of a compact formation of coarse gravel and boulders; probably permanent.

Extremes of Discharge.—Maximum open-water stage during the year, estimated from hydrograph, 6.6 during the night of February 11-12 (discharge, about 1,540 second-feet); a stage of 9.62 feet was observed at 4 p. m. February 11, but the water was held back by an ice jam: minimum, 0.80 foot at 6 p.m. September 25 (discharge, 3.6 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Regulation.—The operation of grist mills upstream from the station may cause variation in stage during low flows. There is very little storage at the mill dam one and one-half miles upstream from the gage; at the dam three and one half-miles upstream from the gage there is some storage and flow during part of day, at time of low water, can probably be stored.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined between 4 and 300 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for extremely high stages when they are fair.

Cooperation.—Station is maintained in cooperation with M. O. Leighton, Consulting Engineer, Washington, D. C.

The following discharge measurement was made by J. M. Snavely: No. 17, March 23: Gage height, 1.52 feet; discharge, 41.9 second-feet.

Daily Mean Gage Height, in feet, of Wapwallopen Creek near Wapwallopen, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.13	1.17	1.22	1.59	2.12	2.03	1.75	1.74	1.61	1.03	1.74	1.02
2	2.91	1.20	1.21	1.64	2.11	1.82	1.88	1.65	1.54	1.02	1.34	.98
3	2.44	1.16	1.25	1.72	2.10	1.84	1.86	1.52	1.48	1.01	1.19	.91
4	2.17	1.09	1.31	1.73	2.07	1.86	1.79	1.49	1.45	1.04	1.15	.97
5	2.03	1.06	1.27	1.80	2.09	1.68	1.73	1.46	1.39	1.13	1.21	.96
6	1.89	1.11	1.54	1.83	2.10	1.55	1.71	1.43	1.35	1.09	1.21	.99
7	1.82	1.08	1.42	1.75	2.23	1.58	1.67	1.39	1.32	1.20	1.23	1.01
8	1.86	1.09	1.42	1.76	2.25	1.64	1.68	1.37	1.30	1.35	1.20	.97
9	1.78	1.07	1.42	1.76	2.68	1.62	1.59	1.38	1.29	1.35	2.35	.94
10	1.59	1.10	1.42	1.74	4.52	1.59	1.58	1.35	1.26	1.30	2.34	.88
11	1.55	1.07	1.28	1.74	7.64	1.61	1.61	2.72	1.20	1.23	2.10	.81
12	1.53	1.11	1.30	1.68	5.25	2.01	1.60	2.79	1.17	1.05	1.65	.85
13	1.49	1.12	1.35	1.68	3.47	1.69	1.57	2.34	1.18	1.03	1.57	1.38
14	1.41	1.11	1.48	1.71	3.01	1.65	1.53	2.35	1.20	1.00	1.48	1.54
15	1.36	1.14	1.42	1.69	2.72	1.67	1.61	2.10	1.17	.95	1.57	1.27
16	1.28	1.09	1.43	1.81	2.95	1.61	1.56	2.08	1.31	1.16	1.46	1.13
17	1.22	1.03	1.39	1.77	2.61	1.64	1.47	2.43	1.15	1.32	1.32	1.11
18	1.24	1.02	1.43	1.80	2.45	1.63	1.45	2.18	1.14	1.07	1.24	1.02
19	1.30	1.13	1.34	1.75	2.32	1.70	1.51	2.05	1.05	1.05	1.20	.91
20	1.33	1.19	1.31	1.74	2.13	1.68	1.60	1.90	1.00	1.01	1.20	.97
21	1.31	1.08	1.22	1.80	2.11	1.64	1.52	1.81	1.04	1.12	1.23	1.02
22	1.35	1.96	1.36	1.81	2.14	1.61	1.46	1.77	1.09	1.44	1.28	.92
23	1.31	2.12	1.47	1.85	2.27	1.60	1.43	1.76	1.02	1.31	1.18	.93
24	1.25	1.58	1.55	1.87	2.19	1.65	1.45	2.33	.97	1.15	1.11	.86
25	1.25	1.42	1.56	1.89	2.07	1.69	1.51	2.13	.99	1.14	1.14	.82
26	1.22	1.33	1.41	1.91	2.16	1.65	1.50	2.03	1.10	1.26	1.00	.85
27	1.23	1.33	1.43	2.07	1.90	1.61	1.49	1.87	1.04	1.28	1.07	.83
28	1.27	1.30	1.52	2.06	1.97	2.32	1.41	1.70	1.07	1.33	1.05	.93
29	1.24	1.24	1.42	2.00	-------	2.32	1.37	1.74	1.16	1.79	1.01	.95
30	1.27	1.22	1.48	2.13	-------	2.17	1.53	1.73	1.16	1.33	1.01	.91
31	1.24	-------	1.61	2.09	-------	1.95	-------	1.69	-------	1.44	.90	-------

Note.—Stage-discharge relation Nov. 19, 20, Nov. 30 to Dec. 3, Dec. 16-17, Dec. 22 to Feb. 11 and Mar. 35 affected by ice.

Daily discharge, in second-feet, of Wapwallopen Creek near Wapwallopen, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	540	16	15	15	12	102	36	64	51	9.6	64	9.6
2	240	18	15	19	12	73	81	55	45	9.2	27	7.8
3	159	16	18	24	18	63	78	43	39	8.8	17	5.9
4	115	12	25	26	20	55	70	40	36	10	15	7.6
5	102	11	22	22	19	50	63	37	31	14	19	7.3
6	82	13	45	20	14	46	61	35	28	12	19	8.1
7	73	12	34	19	12	48	57	31	26	18	20	8.8
8	78	12	34	18	15	54	58	30	24	28	23	7.6
9	69	11	34	18	24	52	49	30	23	28	144	6.7
10	49	12	34	17	110	49	48	28	22	24	144	5.2
11	46	11	23	15	700	51	51	262	18	20	108	4.8
12	44	13	24	15	915	95	50	221	16	10	55	4.6
13	40	14	28	15	375	59	47	144	17	9.6	47	30
14	33	13	39	15	260	55	44	144	18	8.4	39	45
15	29	15	34	14	202	57	51	136	16	7.0	47	22
16	23	12	24	14	250	51	46	108	25	16	37	14
17	19	9.6	24	14	184	54	38	159	15	19	26	13
18	20	9.2	35	14	159	53	36	122	15	11	20	9.2
19	24	8.0	27	12	136	60	42	102	10	9.6	19	5.9
20	26	10	25	12	115	58	50	83	8.4	8.8	18	7.6
21	25	12	19	12	108	54	43	72	10	14	20	9.2
22	28	90	18	12	115	51	37	68	12	36	23	6.2
23	25	108	17	12	129	50	35	67	9.2	25	17	4.2
24	21	48	15	11	122	55	36	144	7.6	15	13	4.3
25	21	34	15	11	102	59	42	115	8.1	15	15	4.0
26	19	26	14	10	115	55	41	102	12	22	12	4.6
27	20	26	14	10	83	51	40	79	10	23	11	4.2
28	22	24	14	10	91	136	33	60	11	26	10	6.4
29	20	20	15	10	-------	136	30	64	16	70	10	7.0
30	22	18	15	10	-------	115	44	63	16	26	8.8	5.9
31	20	-------	15	10	-------	89	-------	59	-------	36	8.1	-------

Note.—Discharge Nov. 19, 20, Nov. 30 to Dec. 3, Dec. 16, 17, Dec. 22 to Feb. 11 and Mar. 35 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Towanda Creek near Monroeton, Lackawanna River at Moosic, Fishing Creek at Bloomsburg and Lehigh River at Tannery.

Monthly discharge of Wapwallopen Creek near Wapwallopen, for the year ending September 30, 1925.

(Drainage area 46 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet Per square mile	Depth in inches
October	540	19	66.3	1.44	1.66
November	108	8.0	21.8	.474	.53
December	45	14	23.5	.511	.59
January	26	10	14.7	.320	.37
February	915	12	158	3.43	3.57
March	136	46	65.7	1.43	1.65
April	81	30	48.9	1.06	1.18
May	221	28	87.3	1.90	2.19
June	51	7.6	19.8	.430	.48
July	70	7.0	19.0	.413	.48
August	144	8.1	34.1	.741	.85
September	45	4.0	9.57	.208	.23
The Year	915	4.0	46.7	1.02	13.78

SUSQUEHANNA BASIN—STATION NO. 9

NESCOPECK CREEK NEAR ST. JOHNS

Location.—At single-span steel highway bridge, the first above the Wilkes-Barre & Hazleton Railway bridge, near St. Johns, Luzerne County.

Drainage Area.—49 square miles.

Records Available.—July 13, 1916, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by John Klinger. Elevation of gage zero 1,116.47 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of gravel and boulders. Control consists of boulders 50 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 5.8 feet at midnight September 30-October 1, 1924, when the stream was falling (discharge, about 1,300 second-feet); a stage of 5.14 feet was observed at 5 p.m. February 9 (discharge, about 990 second-feet); minimum, 0.97 foot at 7 a.m. July 8 (discharge, 5.4 second-feet).

Ice.—Stage-discharge relation seriously affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 100 second-feet and fairly well defined between 100 and 600 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good, except for medium and high stages and estimated periods, when they are fair.

Discharge measurements of Nescopeck Creek near St. Johns, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
26	Mar. 24	H. J. McIntyre	2.12	78.6
27	May 19	do	2.68	161
28	19a	J. M. Snavely	2.67	165

a Measurement made by wading 100 feet upstream from gage.

Daily Mean Gage Height, in feet, of Nescopeck Creek near St. Johns, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	-------	1.73	1.90	1.81	2.02	2.14	2.03	2.08	1.28	1.71	1.21
2	-------	-------	1.69	1.87	1.81	1.93	2.35	2.10	1.97	1.39	1.66	1.17
3	-------	1.60	1.67	1.90	1.81	1.93	2.20	1.94	1.87	1.32	1.61	1.13
4	-------	1.47	1.63	2.31	1.81	1.77	2.30	1.93	1.84	1.19	1.54	1.14
5	-------	1.37	1.59	1.89	1.56	1.93	2.27	1.97	1.81	1.12	1.54	1.11
6	-------	-------	1.65	1.83	-------	-------	2.13	2.00	1.77	1.07	1.67	1.12
7	-------	-------	1.69	1.72	1.31	-------	2.09	2.03	1.77	1.01	1.67	1.19
8	-------	-------	1.67	1.61	1.81	-------	2.04	2.09	1.78	1.50	1.64	1.23
9	-------	1.37	1.65	1.54	3.47	1.80	1.96	2.11	1.70	2.17	-------	1.22
10	-------	1.42	1.63	-------	4.65	1.69	1.92	-------	1.60	2.07	-------	1.18
11	-------	1.48	1.70	2.25	3.93	1.75	1.93	3.34	1.52	1.94	-------	1.16
12	-------	1.51	1.77	2.01	3.19	1.93	1.89	3.34	1.46	1.88	2.00	1.26
13	-------	1.55	1.81	1.90	2.69	2.02	1.87	-------	1.38	1.69	1.92	1.31
14	-------	1.60	1.73	1.65	2.91	1.93	1.82	-------	1.25	1.70	1.92	1.44
15	-------	1.63	1.76	1.57	2.93	1.86	1.73	2.81	1.19	1.88	1.83	1.53
16	-------	1.64	1.78	1.75	-------	1.79	1.69	2.61	1.21	1.93	1.79	1.48
17	1.65	1.55	1.80	1.91	-------	1.77	1.73	-------	1.16	2.03	1.72	1.43
18	1.55	1.50	1.83	2.02	-------	1.89	1.80	-------	1.14	2.07	1.66	1.41
19	1.55	1.46	1.85	2.02	-------	1.77	1.74	-------	1.21	1.89	1.71	1.43
20	1.53	1.42	1.83	1.93	-------	1.89	1.96	2.63	1.19	1.46	1.64	1.38
21	1.49	1.46	1.80	1.95	-------	1.93	1.86	2.39	1.21	1.37	1.62	1.34
22	1.45	-------	1.73	2.06	2.23	1.69	1.83	2.20	1.17	1.44	1.67	1.28
23	1.39	-------	1.76	2.06	-------	1.76	1.80	-------	1.11	1.50	1.59	1.24
24	1.41	-------	1.73	1.99	2.02	1.97	1.76	-------	1.19	1.59	1.54	1.21
25	1.40	-------	1.72	1.81	-------	1.92	1.98	-------	1.24	1.64	1.46	1.17
26	1.35	1.68	1.83	1.81	-------	1.86	2.27	2.44	1.21	1.62	1.41	1.13
27	1.47	1.69	1.90	1.81	-------	1.88	-------	2.36	1.26	1.58	1.37	1.12
28	1.49	1.74	1.95	1.81	2.15	2.56	1.91	2.36	1.31	1.61	1.34	1.15
29	1.42	1.78	1.94	1.81	-------	2.51	1.95	2.41	1.26	1.81	1.30	1.14
30	1.38	1.77	1.93	1.81	-------	2.34	2.00	2.36	1.23	1.72	1.27	1.13
31	-------	-------	1.93	1.81	-------	2.12	-------	2.20	-------	1.76	1.24	-------

Note.—Gage height Oct. 1-16 not observed and unsatisfactory on other days of no record. Stage-discharge relation Nov. 27 to Dec. 9, Dec. 11-19 and Dec. 22 to Feb. 6 affected by ice.

Daily discharge, in second-feet, of Nescopeck Creek near St. Johns, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	900	30	20	20	15	81	106	89	97	13	41	11
2	320	36	19	26	16	70	142	97	76	18	36	10
3	200	31	18	30	19	70	114	72	62	15	32	8.8
4	160	23	16	28	19	48	132	70	58	11	27	9.1
5	140	18	16	26	15	70	123	76	53	8.6	27	8.3
6	120	22	18	22	14	60	106	81	48	7.4	37	8.6
7	110	18	19	22	14	60	97	89	48	6.1	37	11
8	100	22	22	20	53	55	89	97	50	24	35	12
9	90	18	28	20	415	52	75	97	40	106	220	12
10	70	20	34	19	785	39	69	120	31	89	200	10
11	60	23	30	19	535	46	70	360	25	72	150	9.7
12	60	25	28	18	334	70	65	360	22	63	81	13
13	55	28	22	16	214	81	62	240	17	39	69	14
14	46	31	19	16	259	70	55	260	12	40	69	20
15	40	34	19	16	271	60	44	236	11	63	56	26
16	38	35	20	15	240	51	39	192	11	70	51	28
17	36	28	24	15	200	48	44	280	9.7	85	42	20
18	28	24	30	14	180	65	52	260	9.1	89	36	20
19	28	22	50	14	160	48	46	220	11	65	41	20
20	26	20	56	14	150	65	75	203	11	22	35	18
21	24	22	52	14	130	70	60	151	11	18	33	16
22	22	130	46	13	123	39	56	114	10	21	37	13
23	18	130	38	13	110	47	52	120	8.3	24	30	12
24	20	65	30	13	81	76	47	240	11	30	27	11
25	24	46	26	12	80	69	78	180	12	35	22	10
26	16	38	22	12	75	60	123	161	11	33	20	8.8
27	22	30	22	12	80	63	89	142	13	30	18	8.6
28	24	28	20	12	106	782	68	142	14	32	16	9.4
29	20	24	19	11	-------	171	74	151	13	53	14	9.1
30	18	22	19	11	-------	142	81	142	12	42	13	8.8
31	28	-------	19	11	-------	97	-------	114	-------	47	12	-------

Note.—Discharge estimated Oct. 1-16, because of no gage height record, and Oct. 31 to Nov. 2, Nov. 6-8, 22-25, Feb. 16-21, 23, 25-27, Mar. 6-8, Apr. 27, May 10, 13, 14, 17-19, 23-25 and Aug. 9-11, because of unsatisfactory gage height record, from weather records, study of gage height graph and comparison with stream flow at stations in adjacent drainage basins. Discharge Nov. 27 to Dec. 9, Dec. 11-19 and Dec. 22 to Feb. 6 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Towanda Creek near Monroeton, Lackawanna River at Moosic, Wapwallopen Creek near Wapwallopen, Fishing Creeek at Bloomsburg and Lehigh River at Tannery.

Monthly discharge of Nescopeck Creek near St. Johns, for the year ending September 30, 1925. (Drainage area 49 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	900	16	92.4	1.89	2.18
November	130	18	34.7	.708	.79
December	56	16	26.5	.541	.62
January	30	11	16.9	.345	.40
February	785	12	168	3.43	3.57
March	182	39	71.8	1.47	1.70
April	142	39	77.4	1.58	1.76
May	360	70	166	3.39	3.91
June	97	8.3	27.2	.555	.62
July	106	6.1	41.1	.839	.97
August	220	12	50.5	1.03	1.19
September	26	8.3	13.1	.267	.30
The Year	900	6.1	64.9	1.32	18.01

SUSQUEHANNA BASIN—STATION NO. 10

FISHING CREEK AT BLOOMSBURG

Location.—At single-span, wooden covered, highway bridge, known as Red Rock Bridge, Bloomsburg, Columbia County.

Drainage Area.—355 square miles.

Records Available.—January 27, 1914, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by L. Norman Cox. Elevation of gage zero 462.56 feet, United States Geological Survey datum.

Discharge Measurements.—Made from upstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of sand and gravel. Control is at a riffle, where the bed is composed of gravel, about 700 feet downstream from the gage; practically permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 15.5 feet at midnight September 30-October 1, 1924, when the stream was falling (discharge, about 20,500 second-feet); a stage of 13.0 feet, estimated from hydrograph, was reached at 4 a.m. February 12 (discharge, about 15,000 second-feet); minimum, 1.75 feet at 6.40 a.m. June 22 and 5.19 p.m. June 25 (discharge, 14 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 600 second-feet and fairly well defined between 600 and 2,600 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for medium and high stages when they are fair.

The following discharge measurement was made by H. J. McIntyre: No. 27, July 22: Gage height, 4.78 feet; discharge, 1,160 second-feet.

Daily Mean Gage Height, in feet, of Fishing Creek at Bloomsburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10.84	2.75	3.02	3.15	3.22	4.63	4.17	3.57	3.36	2.71	3.70	2.71
2	6.80	2.70	2.85	3.52	3.32	4.57	4.09	3.49	3.25	2.67	3.42	2.68
3	5.60	2.80	2.88	3.37	3.38	4.59	3.95	3.44	3.23	2.59	3.25	2.63
4	4.92	2.52	2.92	3.21	3.28	4.02	3.89	3.36	3.31	2.86	3.09	2.72
5	4.48	2.78	2.96	3.21	3.25	3.93	3.83	3.37	3.04	3.02	3.12	2.46
6	4.21	2.72	2.97	3.22	3.25	3.85	3.69	3.29	2.99	2.72	3.40	2.24
7	4.00	2.70	3.11	3.09	3.37	3.95	3.67	3.25	2.87	2.66	4.00	2.58
8	3.75	2.70	3.17	3.11	3.42	3.95	3.60	3.23	2.98	3.53	3.80	2.92
9	3.59	2.54	3.21	3.05	3.42	3.92	3.49	3.15	2.99	3.29	5.55	2.80
10	3.62	2.57	3.27	3.03	4.67	3.89	3.47	3.17	2.91	2.93	5.80	2.59
11	3.53	2.52	3.25	3.07	10.41	3.98	3.48	4.46	2.67	2.75	4.85	2.70
12	3.46	2.58	3.23	3.07	11.63	4.45	3.39	5.59	2.61	2.76	4.25	2.43
13	3.36	2.59	3.29	3.08	7.91	4.44	3.32	4.87	2.44	2.63	3.94	3.25
14	3.34	2.62	3.36	3.01	6.11	4.25	3.37	4.43	2.44	2.61	3.86	3.55
15	3.29	2.62	3.39	2.96	5.76	4.38	3.43	4.09	2.75	2.47	4.17	3.19
16	3.20	2.67	3.39	3.04	5.86	4.17	3.36	4.02	2.95	2.52	4.06	4.12
17	3.18	2.59	3.42	3.07	5.24	4.19	3.34	4.90	2.89	2.96	3.69	3.73
18	3.11	2.65	3.37	3.07	4.81	4.49	3.26	4.30	2.55	2.81	3.38	3.55
19	3.09	2.40	3.55	2.94	4.54	4.90	3.31	4.04	2.55	2.59	3.31	3.36
20	3.10	2.49	3.39	3.00	4.58	5.07	3.64	3.91	2.54	2.59	3.52	3.16
21	3.09	2.55	3.36	3.09	4.49	4.70	3.36	3.77	2.15	2.67	3.26	3.06
22	2.80	3.80	3.42	2.91	4.96	4.50	3.45	3.63	1.90	4.16	3.29	2.98
23	2.93	4.25	3.25	3.05	5.94	4.29	3.36	3.65	2.20	4.16	3.13	2.94
24	2.75	3.43	3.27	3.11	6.78	4.12	3.33	4.00	2.20	3.48	2.99	2.75
25	2.71	3.25	3.34	3.20	6.11	3.99	3.32	4.20	1.85	3.32	2.98	2.69
26	2.98	3.10	3.37	3.25	6.18	3.91	3.34	4.00	2.15	3.60	2.88	2.65
27	2.90	3.16	3.39	3.21	5.46	4.11	3.31	3.82	2.10	3.66	2.73	2.72
28	2.55	2.94	3.40	3.16	4.90	4.90	3.21	3.67	1.90	3.44	2.66	2.74
29	2.64	2.93	3.39	3.20	-------	4.60	3.31	3.64	2.37	4.19	2.58	2.58
30	2.68	3.12	3.45	3.31	-------	4.43	3.35	3.57	2.87	3.70	2.84	2.78
31	2.80	-------	3.18	3.31	-------	4.31	-------	3.46	-------	3.50	2.68	-------

Note.—Stage-discharge relation Nov. 16-18, 27, Nov. 29 to Dec. 19 and Dec. 22 to Feb. 11 affected by ice.

Daily discharge, in second-feet, of Fishing Creek at Bloomsburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,600	162	180	180	140	1,250	895	500	390	152	590	152
2	3,630	150	170	200	170	1,250	860	464	335	143	422	146
3	2,180	175	160	220	200	1,250	755	434	325	126	335	135
4	1,510	112	160	240	200	790	720	390	365	190	266	155
5	1,170	170	170	220	180	755	685	395	246	238	278	101
6	930	155	180	220	180	685	590	355	227	155	410	66
7	790	150	190	200	170	755	560	335	192	141	790	124
8	620	150	200	180	180	755	530	325	224	500	650	206
9	530	116	220	180	200	720	464	290	227	355	2,180	175
10	530	122	240	170	280	720	452	298	203	209	2,400	126
11	500	112	220	160	7,060	790	458	1,130	143	162	1,420	150
12	446	124	200	160	12,300	1,130	405	2,180	130	150	970	95
13	390	126	200	150	5,240	1,130	370	1,510	97	135	755	335
14	380	132	180	150	2,750	970	395	1,130	97	130	685	500
15	355	132	180	150	2,400	1,090	428	860	162	103	895	306
16	310	110	180	140	2,510	895	390	790	215	112	825	860
17	302	100	180	140	1,780	930	380	1,510	198	218	590	620
18	274	90	200	140	1,420	1,170	340	1,010	118	178	400	500
19	266	90	280	140	1,170	1,510	365	825	118	126	365	390
20	270	106	405	130	1,250	1,690	560	720	116	126	470	294
21	266	118	390	130	1,170	1,330	390	620	54	143	340	254
22	175	650	340	130	1,600	1,170	440	560	27	895	356	224
23	269	970	300	130	2,510	1,010	390	560	60	895	282	212
24	162	428	260	130	3,630	860	375	790	60	458	227	162
25	152	335	240	130	2,750	790	370	930	22	370	224	148
26	224	270	220	130	2,870	720	380	790	54	530	195	139
27	200	240	200	130	2,080	860	365	650	48	560	158	155
28	118	212	200	130	1,510	1,510	315	560	27	434	141	160
29	137	200	190	130	-------	1,250	365	560	85	930	124	124
30	146	190	180	130	-------	1,130	385	500	192	590	185	170
31	175	-------	180	130	-------	1,010	-------	446	-------	470	146	-------

Note.—Discharge Nov. 16-18, 27, Nov. 29 to Dec. 19 and Dec. 22 to Feb. 11 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Lackawanna River at Moosic and Towanda Creek near Monroeton.

Monthly discharge of Fishing Creek at Bloomsburg, for the year ending September 30, 1925.
(Drainage area 355 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	10,600	118	902	2.54	2.93
November	970	90	207	.583	.65
December	405	160	219	.617	.71
January	240	130	158	.445	.51
February	12,300	140	2,070	5.83	6.07
March	1,690	720	1,030	2.90	3.34
April	895	315	479	1.35	1.51
May	2,180	290	723	2.04	2.35
June	390	22	159	.448	.50
July	930	103	320	.901	1.04
August	2,400	124	583	1.64	1.89
September	860	66	239	.673	.73
The Year	12,300	22	582	1.64	22.25

SUSQUEHANNA BASIN—STATION NO. 11

NORTH BRANCH SUSQUEHANNA RIVER AT DANVILLE

Location.—At seven-span steel highway bridge between South Danville and Danville, Montour County.

Drainage Area.—11,200 square miles.

Records Available.—March 25, 1899, to December 31, 1903, and March 23, 1905, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by E. F. Bell. Elevation of gage zero 430.47 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Left bank is high and not subject to overflow; right bank subject to overflow at extremely high stages. Bed is composed of gravel and rock. Control is at a riffle a short distance downstream from the gage; practically permanent.

Extremes of Discharge.—Maximum stage during the year, 20.3 feet observed at 7 a.m. February 13 (discharge, about 162,000 second-feet); minimum, 2.3 feet at 3 p.m. September 6 (discharge, 2,030 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 800 and 150,000 second-feet. Gage read to tenths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

The following discharge measurement was made by J. M. Snavely and H. J. McIntyre: No. 69, July 22: Gage height, 3.56 feet; discharge, 5,990 second-feet.

Daily Mean Gage Height, in feet, of North Branch Susquehanna River at Danville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17.78	2.8	3.4	4.25	5.35	8.25	8.0	4.95	3.9	3.15	3.95	2.5
2	17.58	2.8	3.4	5.65	5.55	7.4	8.0	4.95	3.9	3.3	3.75	2.5
3	15.1	2.75	3.25	6.71	5.6	6.75	7.85	5.6	4.1	4.05	3.55	2.4
4	11.7	2.7	3.1	9.38	5.4	6.35	7.65	5.75	4.1	4.05	3.25	2.4
5	8.9	2.7	3.1	9.65	5.4	5.8	7.25	5.8	3.95	3.85	3.2	2.4
6	7.15	2.6	3.0	9.25	5.4	5.6	6.7	5.47	3.7	3.95	3.2	2.35
7	6.25	2.6	3.2	9.0	5.4	5.45	6.25	6.42	3.55	3.7	3.2	2.4
8	5.65	2.6	3.2	9.07	5.5	5.45	5.95	6.05	3.4	3.9	3.2	2.4
9	5.1	2.6	3.1	8.6	5.6	5.55	5.55	5.75	3.25	4.05	3.78	2.4
10	4.85	2.5	3.4	8.15	7.0	6.0	5.35	5.45	3.2	3.8	4.18	2.4
11	4.6	-------	3.95	8.2	13.51	6.55	5.05	5.4	3.1	-------	4.35	2.4
12	4.45	-------	4.1	7.75	19.15	6.75	4.9	6.15	2.95	-------	3.95	2.45
13	4.2	-------	4.05	7.95	20.1	6.85	4.8	5.85	2.9	-------	4.1	2.91
14	4.1	-------	3.9	7.4	17.97	6.9	4.75	6.05	2.9	-------	4.1	3.1
15	3.85	2.5	3.65	6.9	13.98	6.65	4.55	5.6	2.9	-------	4.3	3.25
16	3.7	2.4	3.35	6.8	11.75	7.53	4.6	5.1	2.9	-------	3.95	3.9
17	3.6	2.4	3.4	6.95	10.25	8.5	4.5	5.0	2.85	-------	4.25	5.64
18	3.5	2.4	3.4	6.9	9.15	7.95	4.7	4.95	2.8	-------	4.05	5.55
19	3.45	2.4	3.5	6.7	8.1	7.45	4.75	4.8	2.7	3.15	3.7	5.1
20	3.3	2.4	3.92	6.25	7.25	8.05	4.6	4.8	2.6	3.9	3.55	4.5
21	3.25	2.4	5.1	6.1	6.9	9.08	5.03	4.55	2.6	3.2	3.3	4.2
22	3.2	2.6	5.55	6.1	6.75	8.2	7.52	4.3	2.8	3.45	3.2	4.0
23	3.1	3.1	4.85	6.1	7.25	7.4	7.15	4.05	2.75	3.65	3.15	4.05
24	3.1	3.42	3.95	5.8	9.45	6.7	6.3	4.25	2.65	3.95	3.05	4.9
25	3.65	3.55	3.3	5.65	12.45	6.25	5.7	4.45	2.6	4.05	3.0	3.8
26	3.0	5.1	3.3	5.65	12.1	5.9	5.4	4.5	2.6	4.5	2.9	3.55
27	3.0	4.65	3.3	5.85	11.3	5.6	5.2	4.35	2.6	4.25	2.8	3.3
28	3.0	4.15	3.3	5.65	10.1	6.0	5.85	4.4	2.65	4.15	2.75	3.2
29	2.95	3.85	3.0	5.35	-------	6.8	5.6	4.35	2.7	3.95	2.65	3.1
30	2.9	3.55	3.1	5.3	-------	8.12	5.05	4.15	3.0	4.0	2.5	3.9
31	2.8	-------	3.2	5.3	-------	8.2	-------	3.95	-------	4.0	2.55	-------

Note.—Gage height Nov. 11-14 and July 11-18 not observed. Stage-discharge relation Dec. 26-28 and Dec. 30 to Feb. 9 affected by ice.

Daily discharge, in second-feet, of North Branch Susquehanna River at Danville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	129,000	3,370	5,380	4,600	2,400	31,700	30,300	12,600	7,420	4,640	7,870	2,530
2	126,000	3,370	5,380	5,000	2,800	26,200	30,300	12,600	7,420	5,000	7,000	2,530
3	96,500	3,220	4,640	5,500	3,000	22,400	28,900	15,600	8,320	7,870	6,170	2,270
4	60,800	3,080	4,300	5,500	3,000	20,000	27,500	16,700	8,320	7,870	4,640	2,270
5	36,900	3,080	4,300	5,000	2,600	16,700	21,900	16,700	7,870	7,000	4,640	2,270
6	24,900	2,800	3,980	4,600	2,800	15,600	21,800	15,100	6,580	7,870	4,640	2,150
7	18,900	2,800	4,640	4,600	3,000	14,600	18,900	20,000	6,170	6,580	4,640	2,270
8	15,600	2,800	4,640	4,600	3,000	14,600	17,800	17,800	5,280	7,420	4,640	2,270
9	13,100	2,800	4,300	4,400	4,400	15,600	15,600	16,700	4,640	7,870	7,000	2,270
10	11,600	2,530	5,380	4,000	23,600	17,800	14,600	14,600	4,640	7,000	8,780	2,270
11	10,700	2,530	7,870	4,000	78,700	21,200	12,000	14,600	4,320	6,000	9,730	2,270
12	9,730	2,530	8,320	4,000	147,000	22,400	12,700	18,900	3,820	5,600	7,870	2,400
13	8,780	2,530	7,870	3,800	150,000	22,400	11,600	16,700	3,670	7,000	8,320	3,670
14	8,320	2,530	7,420	3,600	131,000	23,000	11,600	17,800	3,670	10,000	8,320	4,300
15	7,000	2,530	6,170	3,600	84,100	21,200	10,700	15,600	3,670	7,500	9,250	4,640
16	6,580	2,270	5,380	3,600	61,700	26,900	10,700	13,100	3,670	6,000	7,870	7,420
17	6,170	2,270	5,380	3,400	47,500	33,900	10,200	12,600	3,520	5,000	8,780	15,600
18	5,770	2,270	5,380	3,200	39,200	30,300	11,200	12,600	3,370	4,800	7,870	15,600
19	5,380	2,270	5,770	3,200	31,000	26,200	11,600	11,600	3,080	4,640	6,580	13,100
20	5,000	2,270	7,420	3,000	24,900	30,300	10,700	11,600	2,800	3,980	6,170	10,200
21	4,640	2,270	13,100	3,000	18,300	38,400	12,600	10,700	2,800	4,640	5,000	8,780
22	4,640	2,800	15,600	3,000	22,400	31,700	26,900	9,250	3,370	5,380	4,640	7,870
23	4,300	4,300	11,600	2,800	24,900	26,200	24,900	7,870	3,220	6,170	4,640	7,870
24	4,300	5,380	7,870	2,600	40,800	21,800	19,400	8,780	2,940	7,870	3,980	7,870
25	3,980	6,170	5,000	2,600	67,400	18,900	16,100	9,730	2,800	7,870	3,980	7,870
26	3,980	12,600	4,600	2,600	64,500	17,200	14,600	10,200	2,800	10,200	3,670	6,170
27	3,980	10,700	4,400	2,600	57,200	15,600	13,600	9,730	2,800	8,780	3,370	5,000
28	3,980	8,780	4,000	2,400	46,600	17,800	16,700	9,730	2,940	8,780	3,220	4,640
29	3,820	7,000	3,980	2,400	-------	22,400	15,600	9,730	3,080	7,870	2,940	4,300
30	3,670	6,170	4,000	2,200	-------	31,000	12,600	8,780	3,080	7,870	2,530	3,980
31	3,370	-------	4,000	2,200	-------	31,700	-------	7,870	-------	7,870	2,660	-------

Note.—Discharge estimated Nov. 11-14 and July 11-18, because of no gage height record, from discharge of North Branch Susquehanna River at Wilkes-Barre, and Dec. 26-28 and Dec. 30 to Feb. 9, because of ice, from weather records, study of gage height graph and comparison with similar studies for the station at Wilkes-Barre.

Monthly discharge of North Branch Susquehanna River at Danville, for the year ending September 30, 1925.

(Drainage area 11,200 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	129,000	3,370	21,000	1.88	2.17
November	12,600	2,270	4,000	.357	.40
December	15,600	3,980	6,200	.554	.64
January	5,500	2,200	3,600	.321	.37
February	150,000	2,400	42,800	3.82	3.98
March	38,400	14,600	23,400	2.09	2.41
April	30,300	10,200	17,200	1.54	1.72
May	20,000	7,870	13,100	1.17	1.35
June	8,320	2,800	4,440	.396	.44
July	10,200	3,980	6,850	.612	.71
August	9,730	2,530	5,850	.522	.60
September	15,600	2,150	5,560	.496	.55
The Year	159,000	2,150	12,600	1.12	15.34

SUSQUEHANNA BASIN—STATION NO. 12

WEST BRANCH SUSQUEHANNA RIVER AT BOWER

Location.—At single-span steel highway bridge, about four miles northeast of Mahaffey, near railroad station at Bower, Clearfield County.

Drainage Area.—320 square miles.

Records Available.—October 2, 1913, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Leslie G. Bell. Elevation of gage zero 1,207.22 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Right bank is low and subject to overflow at extremely high stages; left is high and not subject to overflow. Bed is composed of gravel. Control is at a riffle about 200 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 11.2 feet at 7 p.m. February 9 (discharge, about 8,150 second-feet); minimum, 3.85 feet from 5 p.m. September 2 to 5 p.m. September 13 (discharge, 34 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 20 and 4,000 second-feet. Gage read to quarter-tenths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for high stages when they are fair.

The following discharge measurement was made by H. J. McIntyre: No. 32, July 27: Gage height, 5.66 feet; discharge, 480 second-feet.

Daily mean Gage Height, in feet, of West Branch Susquehanna River at Bower, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.00	4.78	4.42	4.88	6.22	6.22	5.30	5.92	4.82	4.48	5.02	3.91
2	6.78	4.60	4.35	4.92	6.32	6.20	5.30	5.95	4.75	4.40	4.92	3.86
3	6.12	4.40	4.35	4.95	7.08	5.98	5.40	5.85	4.70	4.35	4.82	3.85
4	5.78	4.31	4.38	5.00	7.00	5.68	5.30	5.95	4.62	4.30	4.75	3.85
5	5.62	4.30	4.48	4.99	6.95	5.55	5.22	6.08	4.52	4.30	4.68	3.85
6	5.45	4.26	5.11	4.95	6.45	5.42	5.08	5.90	4.50	4.30	4.52	3.85
7	5.25	4.25	6.39	4.90	7.08	5.35	5.00	5.78	4.42	4.33	4.42	3.85
8	5.08	4.36	6.30	4.90	8.12	5.25	5.00	5.62	4.32	5.02	4.35	3.85
9	4.98	4.28	6.08	4.90	9.92	5.65	4.92	5.48	4.63	4.85	4.35	3.85
10	4.78	4.19	5.33	4.90	10.35	5.80	4.75	5.92	4.52	4.62	4.35	3.85
11	4.65	4.15	5.20	4.90	10.19	5.90	4.55	7.79	4.38	4.52	4.65	3.85
12	4.65	4.15	5.30	4.85	10.02	5.97	4.50	7.50	4.30	4.42	4.45	3.85
13	4.65	4.15	5.78	4.85	8.38	5.77	4.55	5.86	4.28	4.35	4.38	3.85
14	4.62	4.26	6.00	4.88	7.25	5.92	4.72	5.32	4.25	4.28	4.35	4.02
15	4.60	4.55	5.82	4.90	6.90	5.82	4.88	4.95	4.32	4.18	4.30	4.05
16	4.55	4.52	5.50	4.92	6.75	5.76	4.80	4.85	4.48	4.15	4.30	4.44
17	4.54	4.42	5.92	5.30	6.42	5.81	4.76	5.65	4.42	4.10	4.25	4.32
18	4.50	4.35	7.20	6.35	6.15	5.92	4.60	5.62	4.40	4.10	4.20	4.12
19	4.46	4.35	6.80	6.08	5.98	6.37	4.78	5.50	4.32	4.10	4.16	4.02
20	4.45	4.34	6.20	5.88	5.82	6.32	5.20	5.38	4.25	4.22	4.38	4.08
21	4.40	4.30	5.85	5.80	5.70	6.02	4.92	5.18	4.20	4.08	4.45	4.02
22	4.39	4.28	5.40	5.75	5.98	5.92	4.90	5.00	4.22	7.64	4.32	4.18
23	4.36	4.29	5.18	5.58	6.54	5.78	4.86	4.90	4.12	6.32	4.22	4.12
24	4.32	4.38	5.05	5.48	6.62	5.52	4.84	5.86	4.10	5.58	4.12	3.99
25	4.30	4.40	5.00	5.40	6.33	5.42	4.80	6.20	4.77	5.50	4.05	3.92
26	4.30	4.35	5.02	5.78	6.88	5.52	4.85	5.65	4.55	5.85	4.00	3.90
27	4.30	4.34	5.32	6.26	6.35	5.45	4.90	5.32	4.42	5.79	4.00	3.90
28	4.32	4.30	5.28	5.93	6.15	5.48	4.85	5.22	4.25	6.40	4.00	3.90
29	4.32	4.25	5.12	5.67	-------	5.40	4.85	5.20	4.35	5.95	4.00	3.90
30	4.30	4.29	5.05	6.07	-------	5.36	5.12	5.12	4.62	5.55	3.95	3.90
31	4.32	-------	4.98	6.20	-------	5.35	-------	4.92	-------	5.15	3.95	-------

Note.—Stage-discharge relation Dec. 1, 2, 26-31, Jan. 14 to Feb. 9 and Feb. 26 to Mar. 5 affected by ice.

Daily discharge, in second-feet, of West Branch Susquehanna River at Bower, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,520	165	70	190	190	550	315	610	165	107	220	39
2	1,260	125	80	190	190	500	315	640	155	95	190	35
3	730	95	88	205	160	440	355	580	145	88	165	34
4	550	82	92	220	160	420	315	640	125	80	155	34
5	445	80	107	220	160	400	280	730	110	80	145	34
6	378	74	250	205	190	355	250	610	110	80	110	34
7	298	72	935	190	260	335	220	550	98	84	98	34
8	250	89	865	190	800	298	220	445	83	220	88	34
9	220	77	730	190	2,600	470	190	400	135	178	88	34
10	165	64	335	190	6,460	550	155	610	110	125	88	34
11	135	60	280	190	6,080	610	118	2,280	92	110	135	34
12	135	60	315	178	5,710	640	110	1,950	80	98	102	34
13	135	60	550	178	3,050	522	118	580	77	88	92	34
14	125	74	670	160	1,640	610	145	315	72	77	88	48
15	125	118	550	160	1,360	550	190	205	83	63	80	50
16	118	110	315	160	1,260	522	165	178	107	60	80	101
17	118	98	610	160	935	550	145	470	98	55	72	83
18	110	88	1,640	160	762	610	125	445	95	55	65	57
19	104	88	1,360	160	670	900	165	400	83	55	61	48
20	102	86	795	160	550	865	220	355	72	68	92	53
21	95	80	580	160	495	670	190	280	65	53	102	48
22	94	77	355	160	670	610	190	220	68	2,060	83	63
23	89	78	280	160	1,700	550	178	190	57	865	68	57
24	83	92	235	160	1,090	400	178	580	55	445	57	45
25	80	95	220	160	900	355	165	795	155	400	50	40
26	80	83	200	160	709	315	178	470	118	580	46	38
27	80	86	200	160	650	378	190	315	100	550	46	38
28	83	80	200	160	600	400	178	280	72	935	46	38
29	83	72	190	160	-------	355	178	280	88	640	46	38
30	80	78	190	160	-------	335	250	250	125	422	42	38
31	83	-------	190	160	-------	335	-------	190	-------	265	42	-------

Note.—Discharge Dec. 1, 2, 26-31, Jan. 14 to Feb. 9 and Feb. 26 to Mar. 5 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for West Branch Susquehanna River at Renovo.

Monthly discharge of West Branch Susquehanna River at Bower, for the year ending September 30, 1925.
(Drainage area 320 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	2,520	80	289	0.903	1.04
November	165	60	86.4	.270	.30
December	1,640	70	435	1.36	1.57
January	220	160	175	.547	.63
February	6,460	160	1,400	4.38	4.56
March	900	298	497	1.55	1.79
April	355	110	202	.631	.70
May	2,280	178	543	1.70	1.96
June	165	55	99.9	.312	.35
July	2,060	55	293	.916	1.06
August	220	42	91.7	.287	.33
September	101	34	44.4	.139	.16
The Year	6,460	34	341	1.07	14.45

SUSQUEHANNA BASIN—STATION NO. 13

CLEARFIELD CREEK AT DIMELING

Location.—At single-span steel highway bridge, Dimeling, Clearfield County, about 400 feet downstream from the mouth of Little Clearfield Creek.

Drainage Area.—370 square miles.

Records Available.—October 2, 1913, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by John Olson. Elevation of gage zero 1,145.56 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Left bank is high and not subject to overflow; right is low and is overflowed at extremely high stages. Bed at control riffle, about 250 feet downstream from the gage, is composed of coarse gravel and boulders; probably permanent.

Extremes of Discharge.—Maximum stage during the year, 12.65 feet observed at 8 p.m. February 9 (discharge, 11,200 second-feet); minimum, 3.27 feet at 4 p.m. September 30 (discharge, 12 second-feet).

Ice.—Stage-discharge relation seriously affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

The following discharge measurement was made by J. M. Snavely: No. 33, July 27: Gage height, 5.20 feet; discharge, 444 second-feet.

Daily Mean Gage Height, in feet, of Clearfield Creek at Dimeling, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.29	3.97	3.84	7.36	7.11	5.46	4.96	5.35	4.66	4.02	4.68	3.51
2	6.36	3.98	3.90	7.48	7.15	5.52	5.00	5.72	4.48	3.82	4.58	3.42
3	5.88	3.93	3.98	7.48	7.44	5.38	5.02	5.62	4.41	3.98	4.45	3.40
4	5.48	3.90	3.98	7.52	7.79	5.39	4.92	5.38	4.37	3.82	4.43	3.39
5	5.09	3.90	4.00	7.24	7.70	5.20	4.64	5.61	4.34	4.04	4.33	3.41
6	4.98	3.88	4.48	7.16	7.62	5.08	4.61	5.78	4.32	3.94	4.22	3.44
7	4.80	3.86	4.90	6.98	8.04	5.30	4.64	5.45	4.30	3.86	4.13	3.41
8	4.69	3.82	5.12	7.24	8.73	5.57	4.54	5.41	4.02	4.01	4.00	3.57
9	4.62	3.80	5.26	7.19	10.87	5.58	4.48	5.42	3.94	3.94	3.92	3.50
10	4.53	3.72	5.08	7.17	9.80	5.51	4.53	5.18	3.94	3.92	4.05	3.58
11	4.41	3.84	4.68	6.94	10.45	5.50	4.49	6.23	4.03	3.82	4.62	3.36
12	4.43	3.79	4.63	6.88	11.18	5.62	4.47	7.32	3.96	3.80	4.38	3.42
13	4.32	3.74	4.68	6.86	8.80	5.46	4.41	6.38	3.88	3.76	4.32	3.44
14	4.24	3.94	5.07	6.78	7.58	5.44	4.44	6.02	3.78	3.75	4.58	3.48
15	4.21	4.10	4.30	6.66	6.85	5.50	4.46	5.51	3.82	3.72	4.15	3.55
16	4.19	4.22	4.82	6.74	6.59	5.35	4.45	5.38	3.95	3.68	3.96	3.73
17	4.16	4.27	5.17	6.87	6.16	5.28	4.42	5.48	3.91	3.58	3.78	3.58
18	4.17	3.68	6.23	7.36	5.78	5.64	4.33	5.18	3.82	3.61	3.84	3.52
19	4.15	3.80	6.08	7.50	5.56	5.84	4.28	5.06	3.71	3.60	3.85	3.47
20	4.07	3.85	5.71	7.24	5.52	5.88	4.73	4.92	3.72	3.62	3.84	3.50
21	3.99	3.80	5.81	7.02	5.52	5.64	4.70	4.80	3.78	3.98	3.86	3.65
22	3.96	3.97	6.03	6.98	5.50	5.44	4.50	4.80	3.65	6.44	3.78	3.55
23	3.98	4.04	7.50	6.92	5.11	5.33	4.47	4.97	3.64	5.80	3.79	3.66
24	4.00	4.08	7.95	6.80	6.25	5.16	4.42	5.61	3.75	4.98	3.78	3.48
25	3.96	4.03	8.21	6.75	5.92	5.10	4.40	5.96	4.14	4.81	3.72	3.44
26	3.84	3.78	7.93	6.79	6.15	5.03	4.43	5.71	4.18	5.45	3.64	3.56
27	3.79	3.58	7.46	7.04	6.00	5.04	4.50	5.25	4.09	5.48	3.62	3.58
28	3.81	3.81	7.17	7.51	5.45	5.44	4.43	5.12	3.95	5.32	3.58	3.50
29	3.91	3.98	7.26	7.42	-------	5.10	4.46	5.02	3.98	5.09	3.52	3.48
30	3.92	3.93	7.45	7.14	-------	4.98	4.76	4.92	4.07	4.86	3.46	3.39
31	3.89	-------	7.38	7.11	-------	4.94	-------	4.82	-------	4.61	3.50	-------

Note.—Stage-discharge relation Nov. 19, 20, Nov. 28 to Dec. 5, Dec. 12-14 and Dec. 21 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of Clearfield Creek at Dimeling, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,000	101	48	130	200	552	372	540	268	109	285	37
2	1,180	105	48	140	220	620	390	720	220	78	250	27
3	750	96	48	110	200	565	390	675	195	105	208	25
4	620	91	55	150	180	565	355	565	184	78	208	24
5	430	91	75	150	200	470	268	675	184	119	184	26
6	390	88	220	150	240	430	268	590	172	98	150	29
7	320	85	355	150	360	515	268	592	172	85	140	26
8	285	80	430	150	1,560	648	235	565	149	109	109	22
9	256	75	402	150	7,540	675	220	565	98	98	95	24
10	235	64	450	150	5,440	626	235	470	98	95	119	23
11	195	81	285	140	6,560	620	220	1,040	119	78	250	21
12	208	74	240	130	8,160	675	208	2,060	102	75	195	27
13	172	67	220	130	3,880	592	195	1,180	88	69	172	29
14	161	98	200	130	2,100	592	208	915	72	68	195	34
15	150	129	172	130	1,520	626	208	620	78	64	140	42
16	150	150	520	130	1,340	540	208	565	100	58	109	65
17	140	161	450	130	1,040	515	195	520	93	46	72	46
18	140	58	1,040	130	790	702	184	470	78	49	81	38
19	140	55	980	130	648	820	172	410	62	48	78	62
20	119	48	730	130	620	850	302	355	64	51	81	48
21	107	75	550	130	515	702	285	320	72	96	85	58
22	102	104	400	130	620	592	220	320	54	1,180	72	47
23	105	119	320	130	980	540	208	372	53	870	74	56
24	109	129	220	130	1,040	450	195	675	68	390	72	34
25	102	119	170	130	850	430	195	882	140	338	64	29
26	81	72	150	130	980	410	208	730	150	592	53	43
27	74	46	140	130	915	410	220	492	129	620	51	46
28	77	48	130	130	592	592	208	430	100	515	46	36
29	93	48	130	130	-------	430	208	390	105	430	38	34
30	95	48	120	130	-------	390	302	355	109	338	32	15
31	89	-------	120	150	-------	372	-------	320	-------	250	56	-------

Note.—Discharge Nov. 19, 20, Nov. 28 to Dec. 5, Dec. 12-14 and Dec. 21 to Feb. 8, estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for West Branch Susquehanna River at Bower, Frankstown Branch Juniata River at Williamsburg and Little Juniata River at Tyrone.

Monthly discharge of Clearfield Creek at Dimeling, for the year ending September 30, 1925.

(Drainage area 370 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	2,000	74	296	0.800	0.92
November	161	46	86.9	.235	.26
December	1,040	48	300	.811	.94
January	150	130	136	.368	.42
February	8,160	180	1,760	4.76	4.96
March	850	372	566	1.53	1.76
April	390	172	245	.662	.74
May	2,000	320	633	1.71	1.97
June	268	58	118	.319	.36
July	1,180	46	232	.627	.72
August	285	32	120	.324	.37
September	65	15	35.8	.097	.11
The Year	8,160	15	339	.997	13.53

SUSQUEHANNA BASIN—STATION NO. 14

DRIFTWOOD BRANCH SINNEMAHONING CREEK AT STERLING RUN

Location.—At three-span steel highway bridge, Sterling Run, Cameron County, about 300 feet upstream from mouth of Sterling Run.

Drainage Area.—270 square miles.

Records Available.—September 30, 1913, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by C. U. Lupro. Elevation of gage zero 894.60 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are low and subject to overflow during extremely high stages. Bed is composed of gravel. The control for low stages is at the first of a series of gravel riffles extending from 50 to 100 feet downstream from the gage; probably permanent. The control for medium and high stages, which was at the first of a series of riffles extending from 300 to 500 feet downstream from the gage, was changed on November 2, 1921, when a portion of the gravel bar, deposited by flow from Sterling Run on September 10, 1921, was washed away.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 7.8 feet at 2 a.m. February 12 (discharge, about 12,700 second-feet); minimum, 0.68 foot at 3 p.m. September 3, 4 and 5 and at 7 a.m. September 6 (discharge, 28 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined between 20 and 10,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

The following discharge measurement was made by H. J. McIntyre: No. 48, July 26; Gage height, 1.04 feet; discharge, 115 second-feet.

Daily Mean Gage Height, in feet, of Driftwood Branch Sinnamahoning Creek at Sterling Run, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.51	0.74	0.89	1.32	1.30	2.42	1.80	1.57	1.56	1.32	1.32	0.70
2	1.98	.80	.78	1.25	1.40	2.08	1.76	1.69	1.49	1.22	1.17	.70
3	1.62	.74	.76	1.22	1.57	1.82	1.71	1.72	1.42	1.14	1.07	.68
4	1.42	.72	.75	1.22	1.98	1.88	1.62	1.81	1.33	1.06	1.02	.68
5	1.29	.72	.75	1.22	1.94	1.82	1.57	2.63	1.24	1.06	.98	.68
6	1.20	.71	.81	1.19	1.92	1.67	1.50	2.52	1.19	1.04	.96	.68
7	1.10	.71	.93	1.14	2.11	1.68	1.48	2.33	1.12	.97	.94	.70
8	1.10	.71	1.08	1.12	2.70	1.73	1.46	2.12	1.65	1.07	.92	.76
9	1.02	.70	1.52	1.11	3.17	1.80	1.44	1.98	1.65	1.12	.95	.75
10	.98	.70	1.48	1.12	4.08	1.75	1.45	1.88	1.48	1.00	.99	.72
11	.96	.70	1.34	1.10	5.58	1.83	1.56	2.32	1.32	.98	.96	.70
12	.90	.70	1.32	1.10	6.45	1.88	1.49	2.48	1.23	.94	.90	.70
13	.89	.70	1.34	1.10	3.92	1.82	1.42	2.32	1.12	.90	.86	.70
14	.86	.74	1.24	1.11	2.95	1.90	1.41	1.90	1.10	.85	.96	.88
15	.85	.81	1.16	1.10	2.52	1.94	1.50	1.55	1.08	.82	.98	.89
16	.84	.78	1.18	1.18	2.32	1.86	1.45	1.42	1.08	.88	.90	.94
17	.80	.74	1.41	1.24	2.16	1.87	1.42	1.84	1.02	1.30	.84	.88
18	.79	.70	2.25	1.29	1.98	1.89	1.40	1.76	.98	1.02	.82	.91
19	.79	.70	2.95	1.23	1.91	2.46	1.43	1.70	.96	.94	.80	.98
20	.78	.72	2.94	1.20	1.82	2.74	1.47	1.65	.92	.87	.80	.90
21	.78	.78	2.45	1.14	1.75	2.50	1.36	1.58	.90	.85	.84	.93
22	.78	.80	2.32	1.11	1.93	2.26	1.32	1.52	.90	1.48	.91	.90
23	.77	.80	2.18	1.11	2.85	2.08	1.33	1.46	.88	1.36	.84	.85
24	.76	.80	1.90	1.10	3.22	1.90	1.32	1.58	.88	1.14	.79	.81
25	.75	.80	1.56	1.06	2.83	1.84	1.30	2.08	1.07	1.05	.76	.79
26	.74	.78	1.26	1.10	2.94	1.83	1.39	2.10	1.16	1.12	.74	.78
27	.74	.76	1.11	1.10	2.71	1.72	1.32	1.98	1.02	1.18	.74	.86
28	.74	.74	1.42	1.10	2.64	1.98	1.30	1.84	1.12	1.20	.72	.89
29	.73	.76	1.41	1.17	-------	1.97	1.28	1.76	1.23	1.38	.70	.82
30	.73	.80	1.38	1.23	-------	1.92	1.36	1.78	1.57	1.24	.70	.80
31	.72	-------	1.38	1.27	-------	1.86	-------	1.66	-------	1.16	.70	-------

Note.—Stage-discharge relation Nov. 24-27, Dec. 12-15, 22-26, Dec. 28 to Jan. 2, Jan. 11 to Feb. 9 and Feb. 26 to Mar. 2 affected by ice.

Daily discharge, in second-feet, of Driftwood Branch Sinnemahoning Creek at Sterling Run, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,310	34	41	140	75	600	530	349	342	205	205	29
2	647	41	39	140	85	550	498	442	294	159	140	29
3	386	34	36	159	100	548	458	466	256	129	105	28
4	256	31	35	159	110	602	386	539	210	102	89	28
5	190	31	35	159	110	548	349	1,540	168	102	78	28
6	150	30	43	146	85	426	300	1,310	146	96	73	28
7	115	30	66	129	80	434	289	1,100	122	76	68	29
8	115	30	109	122	100	474	278	810	410	105	63	36
9	89	29	314	118	700	530	267	692	410	122	70	35
10	78	29	289	122	4,200	490	272	602	289	83	80	31
11	73	29	215	110	7,420	602	342	1,040	205	78	73	29
12	58	29	150	100	9,300	602	294	1,310	164	68	58	29
13	56	29	120	100	3,800	548	256	1,040	122	58	51	29
14	51	34	110	100	2,020	620	250	620	115	50	73	55
15	50	43	110	100	1,310	656	300	335	109	44	78	56
16	48	39	143	95	1,040	584	272	256	109	55	58	68
17	41	34	250	95	865	593	256	566	89	195	48	55
18	40	29	980	90	692	584	245	498	78	89	44	60
19	40	29	2,020	90	629	1,240	262	450	73	68	41	76
20	39	31	2,020	90	548	1,690	284	410	63	53	41	58
21	39	39	1,240	90	490	1,310	225	356	58	50	48	66
22	39	41	650	85	647	980	205	314	58	289	60	58
23	37	41	380	85	1,860	810	210	278	55	225	48	50
24	36	36	220	85	2,470	620	205	356	55	129	40	43
25	35	34	150	85	1,860	566	195	810	105	99	36	40
26	34	32	130	85	1,300	557	240	810	136	122	34	39
27	34	32	118	80	1,000	466	205	692	89	143	34	51
28	34	34	120	80	750	602	195	566	122	150	31	56
29	33	36	130	75	-------	683	186	498	164	235	29	44
30	33	41	130	75	-------	638	225	514	349	168	29	41
31	31	-------	130	70	-------	584	-------	418	-------	130	29	-------

Note.—Discharge Nov. 24-27, Dec. 12-15, 22-26, Dec. 28 to Jan. 2, Jan. 11 to Feb. 9 and Feb. 26 to Mar 2 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Pine Creek at Cedar Run, Towanda Creek near Monroeton and Allegheny River near Larabee.

Monthly discharge of Driftwood Branch Sinnemahoning Creek at Sterling Run, for the year ending September 30, 1925.

(Drainage area 270 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	1,310	31	136	0.504	0.58
November,	43	29	33.7	.125	.14
December,	2,020	35	339	1.26	1.45
January,	159	70	105	.389	.45
February,	9,300	75	1,560	5.78	6.02
March,	1,690	426	672	2.49	2.87
April,	530	186	283	1.05	1.17
May,	1,540	256	645	2.39	2.76
June,	410	55	166	.615	.69
July,	289	44	119	.441	.51
August,	205	29	63.0	.233	.27
September,	78	28	43.5	.161	.18
The Year,	9,300	28	339	1.26	17.09

WEST BRANCH SUSQUEHANNA RIVER AT RENOVO

Location.—At three-span steel highway bridge, Eighth Street, Renovo, Clinton County

Drainage Area.—2,990 square miles.

Records Available.—July 1, 1895, to December 31, 1903, and October 1, 1905, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by J. H. Baird. Elevation of gage zero 634.03 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of rocks. Control is at the first of a series of riffles about 1,000 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, 14.50 feet observed at 8 a.m. February 12 (discharge, about 77,000 second-feet); minimum, —0.72 foot on September 13 (discharge, 183 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 200 and 2,000 second-feet and fairly well defined from 2,000 to 75,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for medium and high stages when they are fair.

The following discharge measurement was made by J. M. Snavely; No. 50, July 25: Gage height, 1.28 feet; discharge, 2,000 second-feet.

Daily Mean Gage Height, in feet, of West Branch Susquehanna River at Renovo, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar	Apr.	May	June	July	Aug.	Sept.
1	5.70	0.03	—0.37	2.33	2.12	3.66	2.56	1.61	2.34	0.79	0.90	—0.56
2	4.37	.07	— .22	2.05	2.00	3.36	2.47	2.17	2.10	.57	.82	— .50
3	3.40	.09	—. 11	2.19	2 11	2.97	2.34	2.64	1.88	.45	.65	— .60
4	2.66	.05	— .12	2.30	2.34	2.84	2.16	2.69	1.66	.34	.48	— .62
5	2.18	.02	.09	2.26	2.95	2.65	1.99	2.98	1.46	.52	.40	— .64
6	1.88	.00	.00	1.80	3.00	2.43	1.78	3.35	1.30	.40	.32	— .64
7	1.61	—.02	.10	1.62	2.89	2.34	1.62	3.35	1.22	.30	.23	— .66
8	1.42	—.02	.65	1.55	3.27	2.48	1.55	3.05	1.31	.42	.20	— .66
9	1.30	—.02	2.02	1.46	6.30	2.72	1.54	2.81	1.66	.72	.22	— .68
10	1.23	—.02	2.33	1.36	8.12	2.75	1.51	2.69	1.40	.65	.26	— .68
11	1.10	—.02	1.84	1.44	10.17	2.76	1.61	3.09	1.11	.56	.25	— .70
12	.90	—.02	1.58	1.38	13.65	2.83	1.54	4.37	.92	.40	.21	— .70
13	.70	—.02	1.50	1.26	10.23	2.82	1.42	4.57	.76	.28	.35	— .72
14	.65	.00	1.34	1.22	7.35	2.85	1.31	4.05	.69	.22	.20	— .57
15	.59	.05	1.24	1.17	5.98	2.88	1.37	3.55	.64	.13	.32	— .43
16	.52	.04	1.70	1.15	5.05	2.80	1.33	3.17	.73	.06	.24	— .28
17	.47	.01	1.82	1.04	4.56	2.73	1.29	3.12	.65	.03	.18	— .21
18	.44	—.07	3.18	1.45	3.90	2.72	1.24	3.01	.54	.20	.00	— .14
19	.36	—.09	4.67	1.53	3.47	3.14	1.21	2.82	.41	.01	—.08	— .07
20	.30	—.06	4.85	1.47	3.21	3.99	1.30	2.59	.34	—.04	—.20	— .03
21	.26	—.01	4.21	1.45	2.95	3.95	1.35	2.34	.23	.01	—.20	— .09
22	**.23**	**.05**	**3.60**	**1.51**	**2.94**	**3.75**	**1.35**	**2.14**	**.13**	**1.06**	**—.20**	**—.17**
23	.19	.02	2.92	1.56	3.57	3.41	1.29	1.97	.12	2.99	—.20	— .23
24	.18	.01	2.75	1.60	4.31	2.96	1.20	3.16	.15	2.27	—.22	— .36
25	.16	.01	2.57	1.64	4.94	2.73	1.20	4.68	.45	1.36	—.24	— .47
26	.11	—.04	1.71	1.43	4.79	2.53	1.23	4.67	1.20	1.00	—.28	— .53
27	.07	.07	1.12	1.36	4.69	2.42	1.24	4.17	1.05	1.24	—.33	— .50
28	.05	—.17	2.08	1.35	4.12	2.93	1.19	3.67	.77	1.55	—.44	— .48
29	.04	—.12	1.90	1.73	-------	3.07	1.19	3.24	.63	1.66	—.50	— .50
30	.04	—.10	1.97	2.10	-------	2.93	1.19	2.79	.89	1.70	—.52	— .54
31	.01	-------	2.53	2.12	-------	2.73	-------	2.53	-------	1.20	—.54	-------

Note.—Stage-discharge relation Nov. 27, 29, 30, Dec. 2-5 and Dec. 28 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of West Branch Susquehanna River at Renovo, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16,100	640	348	1,900	1,200	7,450	4,590	2,530	3,920	1,390	1,510	248
2	9,770	640	360	1,900	1,200	6,590	4,360	3,710	3,500	1,160	1,390	234
3	6,590	680	400	1,600	950	5,550	3,920	4,590	3,100	1,000	1,220	230
4	4,820	640	420	1,600	1,000	5,060	3,710	4,820	2,710	920	1,050	222
5	3,710	600	460	1,500	1,200	4,590	3,300	5,550	2,360	1,050	950	214
6	3,100	600	600	1,400	1,900	4,140	2,900	6,590	2,050	950	855	214
7	2,530	585	680	1,300	1,600	3,920	2,530	6,590	1,910	855	810	206
8	2,200	585	1,220	1,200	3,000	4,360	2,530	5,550	2,050	950	765	206
9	2,050	585	3,300	1,200	18,600	4,820	2,360	5,000	2,710	1,270	765	198
10	1,910	585	3,920	1,100	29,200	5,000	2,360	4,820	2,200	1,220	810	198
11	1,770	585	2,900	1,000	43,700	5,060	2,530	5,800	1,770	1,100	810	190
12	**1,510**	**585**	**2,530**	**1,000**	**70,200**	**5,060**	**2,360**	**9,770**	1,510	950	765	196
13	1,270	585	2,360	1,000	43,700	5,000	2,200	10,600	1,330	855	902	**183**
14	1,220	600	2,050	950	25,000	5,060	2,050	8,380	1,270	765	765	**244**
15	1,160	640	1,910	950	17,100	5,300	2,200	7,160	1,220	722	855	**314**
16	1,050	640	2,710	900	12,200	5,000	2,050	6,060	1,330	640	810	403
17	1,000	600	2,900	900	10,600	4,820	2,050	5,800	1,220	640	765	**448**
18	1,000	548	6,060	850	8,060	4,820	1,910	5,550	1,160	765	600	**497**
19	902	532	11,000	850	6,870	5,800	1,910	5,000	950	600	540	**548**
20	855	555	11,400	850	6,060	8,380	2,050	4,590	902	570	455	**578**
21	810	592	9,050	850	5,550	8,380	2,200	3,920	810	600	455	**532**
22	810	640	7,160	850	5,300	7,750	2,200	3,500	722	1,770	455	**476**
23	765	600	5,300	850	7,160	6,590	2,050	3,300	680	5,550	455	**436**
24	765	600	5,060	850	9,400	5,550	**1,910**	**6,060**	722	**3,920**	**442**	**354**
25	722	600	4,590	800	11,800	4,820	1,910	11,000	1,000	2,200	429	292
26	680	570	2,710	800	11,400	4,360	1,910	11,000	1,910	1,640	403	262
27	640	500	1,770	800	11,000	4,140	1,910	9,050	1,640	1,910	372	275
28	640	476	1,400	800	8,710	5,300	1,910	7,450	1,330	2,360	308	286
29	640	420	1,400	800	-------	5,800	1,910	6,060	1,220	2,710	275	275
30	640	400	1,400	850	-------	5,300	1,910	5,060	1,510	2,710	265	257
31	600	-------	1,600	950	-------	4,820	-------	4,360	-------	1,910	257	-------

Note.—Discharge Nov. 27, 29, 30, Dec. 2-5 and Dec. 28 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for West Branch Susquehanna River at Bower and Williamsport.

Monthly discharge of West Branch Susquehanna River at Renovo, for the year ending September 30, 1925.
(Drainage area 2,990 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	15,100	600	2,330	0.779	0.90
November	680	400	580	.194	.22
December	11,400	348	3,190	1.07	1.23
January	1,900	800	1,070	358	.41
February	70,200	950	13,300	4.45	4.63
March	8,380	3,920	5,440	1.82	2.10
April	4,590	1,910	2,460	.823	.92
May	11,000	2,530	6,110	2.04	2.35
June	3,920	680	1,690	.565	.63
July	5,550	570	1,470	.492	.57
August	1,510	257	694	.232	.27
September	578	183	307	.103	.11
The Year	70,200	183	3,160	1.06	14.34

SUSQUEHANNA BASIN—STATION NO. 16

WEST BRANCH SUSQUEHANNA RIVER AT LOCK HAVEN

Location.—At four-span steel highway bridge, Jay Street, Lock Haven, Clinton County.

Drainage Area.—3,350 square miles.

Records Available.—October 1, 1913, to August 31, 1923, and August 14 to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read to hundredths twice daily by E. A. McGill; during high stages more frequently. Elevation of gage zero 535.00 feet, United States Geological Survey datum. Previous to October 4, 1921, a painted staff gage on right side of first pier was read to half tenths; elevation of gage zero was 540.95 feet. The standard chain gage attached to the downstream side of the wooden covered bridge, for the purpose of obtaining low stages, was destroyed by fire on January 27, 1919.

Channel and Control.—Both banks are high and not subject to overflow. Control for medium and high stages is the remaining portion of an old dam about 2,300 feet downstream from the gage; probably permanent.

Extremes of Stage.—Maximum gage height during the period August 14 to September 30, 1.86 feet observed on August 16; minimum, 0.87 foot at 5 p.m. September 5.

Ice.—Stage-discharge relation seriously affected by ice.

Gage heights obtained at this station are for Flood Warning purposes.

Daily Mean Gage Height, in feet, of West Branch Susquehanna River at Lock Haven, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												0.99
2												.95
3												.93
4												.90
5												.88
6												.90
7												.94
8												.92
9												.91
10												.89
11												.90
12												.91
13												1.01
14											1.70	1.05
15											1.76	1.04
16											1.86	1.07
17											1.77	1.21
18											1.68	1.35
19											1.52	1.34
20											1.42	1.48
21											1.38	1.48
22											1.34	1.38
23											1.34	1.29
24											1.34	1.22
25											1.32	1.76
26											1.28	1.14
27											1.25	1.06
28											1.18	1.06
29											1.10	1.04
30											1.05	.99
31											1.01	

Note—Station was re-established on Aug. 14, 1925.

SUSQUEHANNA BASIN—STATION NO. 17

BALD EAGLE CREEK AT MILESBURG

Location.—At two-span steel Pennsylvania Railroad bridge, Milesburg, Centre County, about 1,000 feet upstream from the mouth of Spring Creek.

Drainage Area.—140 square miles.

Records Available.—February 6, 1911, to September 30, 1925.

Gage.—Staff fastened to downstream end of bridge pier; read by P. H. Haupt.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Right bank is high, steep and rocky; left is low and subject to overflow at extremely high stages. Control is at a riffle about 100 feet upstream from the mouth of Spring Creek, where the bed is composed of gravel and boulders; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 5.50 feet at 9 p.m. February 10 (discharge, about 4,850 second-feet); minimum, 0.00 foot from 8 a.m. August 31 to 8 a.m. September 12 (discharge, 10 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 2,000 second-feet. Gage read to quarter-tenths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for high stages when they are fair.

Discharge measurements of Bald Eagle Creek at Milesburg, during the year ending September 30, 1925.

No.	Date	Made by	Gage Height	Discharge
			Feet	Sec.-ft.
34	July 28a	H. J. McIntyre	0.25	22.7
∞	28a	do	.25	22.9

a Measurement made by wading 250 feet upstream from gage.

Daily Mean Gage Height, in feet, of Bald Eagle Creek at Milesburg, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2.42	0.40	0.40	0.55	-------	1.86	1.12	1.38	0.89	0.45	0.48	0.00
2	1.62	.38	.36	.58	-------	1.72	1.08	1.58	.69	.42	.42	.00
3	1.15	.35	.35	.60	-------	1.62	.98	1.55	.45	.40	.32	.00
4	.95	.35	.35	.58	-------	1.52	.85	1.35	.38	.40	.26	.00
5	.82	.33	.38	.48	-------	1.42	.72	1.38	.32	.45	.22	.00
6	.76	.30	.40	-------	-------	1.25	.70	1.32	.30	.40	.20	.00
7	.72	.30	.48	-------	-------	1.12	.66	1.22	.54	.32	.20	.00
8	.65	.30	.58	-------	-------	1.21	.62	1.12	.45	.30	.25	.00
9	.58	.30	.54	-------	-------	1.40	.58	1.04	.40	.30	.42	.00
10	.52	.30	.50	-------	2.94	1.52	.62	1.08	.40	.30	.32	.00
11	.45	.30	.50	-------	4.80	1.52	.56	2.13	.36	.30	.26	.00
12	.40	.30	.58	-------	3.72	1.42	.52	2.10	.32	.28	.22	.05
13	.40	.30	.58	-------	2.88	1.32	.50	1.88	.30	.24	.25	.16
14	.38	.45	.55	-------	2.26	1.28	.50	1.65	.30	.20	.48	.20
15	.35	.42	.54	-------	1.95	1.18	.58	1.41	.30	.16	.42	.22
16	.35	.40	.50	-------	1.75	1.08	.52	1.22	.30	.18	.38	.22
17	.33	.40	.62	-------	1.51	1.12	.46	1.53	.30	.22	.34	.25
18	.34	.37	.75	-------	1.34	1.12	.42	1.35	.30	.20	.28	.45
19	.35	.35	.90	-------	1.24	1.02	.45	1.15	.27	.20	.24	.42
20	.35	.34	.88	-------	1.16	1.35	.62	.98	.24	.20	.20	.32
21	.35	.33	.82	-------	1.08	1.38	.52	.88	.20	.38	.28	.28
22	.40	.40	.85	-------	1.42	1.28	.42	.82	.20	.65	.20	.24
23	.37	.40	.94	-------	2.26	1.18	.36	1.29	.20	.68	.20	.20
24	.35	.40	.94	-------	2.22	1.12	.34	2.55	.37	.50	.20	.20
25	.34	.36	.88	-------	1.82	1.08	.40	2.19	.68	.34	.17	.20
26	.32	.35	.82	-------	2.37	1.00	.40	1.72	.55	.35	.15	.20
27	.30	.35	.72	-------	2.35	1.04	.40	1.46	.42	.32	.13	.20
28	.30	.40	.62	-------	2.14	1.10	.40	1.28	.52	.26	.10	.20
29	.30	.40	.52	-------	-------	1.02	.40	1.20	.58	.30	.05	.20
30	.40	.40	.48	-------	-------	1.02	1.05	1.12	.50	.38	.02	.16
31	.40	-------	.52	-------	-------	1.08	-------	1.02	-------	.54	.00	-------

Note.—Stage-discharge relation Dec. 11-16 and Dec. 21 to Feb. 9 affected by ice. Gage height Jan. 6 to Feb. 9 unsatisfactory.

Daily discharge, in second-feet, of Bald Eagle Creek at Milesburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	580	36	36	46	32	310	121	175	91	40	43	10
2	226	34	33	44	38	255	121	226	66	38	38	10
3	129	32	32	44	44	226	103	212	40	36	30	10
4	99	32	32	42	44	198	85	165	34	36	25	10
5	82	30	34	40	40	175	69	175	30	40	22	10
6	74	28	36	40	36	146	67	155	28	36	21	10
7	69	28	42	38	36	121	62	137	49	30	21	10
8	61	28	53	36	46	137	57	121	40	28	24	10
9	53	28	49	36	120	175	53	114	36	28	38	10
10	47	28	45	34	965	198	57	121	36	28	30	10
11	40	28	38	32	5,560	198	51	445	33	28	25	10
12	36	28	34	32	1,850	175	47	420	30	27	22	12
13	36	28	30	30	920	155	45	330	28	24	24	19
14	34	40	28	30	498	155	45	240	28	21	43	21
15	32	38	30	30	352	137	53	175	28	19	38	22
16	32	36	36	30	272	121	47	137	28	20	34	22
17	30	36	57	28	198	121	49	212	28	22	31	24
18	31	34	73	28	165	121	38	165	28	21	27	40
19	32	32	92	28	146	106	40	129	26	21	24	38
20	32	31	89	28	129	165	57	103	24	21	21	30
21	32	30	70	28	121	175	47	89	21	34	27	27
22	36	36	55	28	175	155	38	82	21	61	21	24
23	34	36	48	30	498	137	33	155	21	65	21	24
24	32	36	40	32	470	121	31	670	34	45	21	21
25	31	33	34	32	290	121	36	470	65	31	19	21
26	30	32	32	34	552	106	36	255	50	32	18	21
27	28	32	30	36	552	114	36	186	38	30	17	21
28	28	36	28	38	445	121	36	155	47	25	15	21
29	28	36	28	36	-------	106	36	137	53	28	12	21
30	36	36	32	34	-------	106	114	121	45	34	12	19
31	36	-------	36	32	-------	121	-------	106	-------	49	10	-------

Note.—Discharge Dec. 11-16 and Dec. 21 to Feb. 9 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Bald Eagle Creek at Beech Creek Station, West Branch Susquehanna River at Bower, Frankstown Branch Juniata River at Williamsburg and Little Juniata River at Tyrone.

Monthly discharge of Bald Eagle Creek at Milesburg, for the year ending September 30, 1925. (Drainage area 140 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	580	28	67.9	0.485	0.56
November	40	28	32.6	.233	.26
December	92	28	43.0	.307	.35
January	44	28	33.9	.242	.28
February	2,560	32	450	3.21	3.34
March	310	106	154	1.10	1.27
April	121	31	56.7	.405	.45
May	670	82	206	1.47	1.70
June	91	21	37.5	.268	.30
July	65	19	32.2	.230	.27
August	43	10	25.0	.179	.21
September	40	10	18.5	.132	.15
The Year	3,560	10	94.2	.673	9.14

SUSQUEHANNA BASIN—STATION NO. 18

BALD EAGLE CREEK AT BEECH CREEK STATION

Location.—At three-span steel highway bridge, Beech Creek Station, Pennsylvania Railroad, Clinton County.

Drainage Area.—565 square miles.

Records Available.—June 24, 1910, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by D. A. Bartlett and Joshua L. Rupert.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Right bank is high and not subject to overflow; left bank subject to overflow at extremely high stages. Bed is composed of gravel and rocks. Control is at a riffle, about 1,000 feet downstream from the gage, where there is a pronounced fall; practically permanent.

Extremes of Discharge.—Maximum stage during the year, 9.25 feet observed at 8 a.m. February 12 (discharge, about 12,900 second-feet); minimum, 1.36 feet from 4 p.m. September 8 to 4 p.m. September 9 (discharge, 110 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation probably permanent except when affected by ice. Rating curve well defined below 800 second-feet and fairly well defined between 800 and 10,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for medium and high stages when they are fair .

Discharge measurements of Bald Eagle Creek at Beech Creek Station, during the year ending September 30, 1925.

No.	Date	Made by	Gage Height	Discharge
			Feet	Sec. ft.
43	July 23	H. J. McIntyre	2.12	427
44	Sept. 18	do	1.59	182

Daily Mean Gage Height, in feet, of Bald Eagle Creek at Beech Creek Station, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	1.70	1.62	2.12	2.35	2.91	2.51	2.44	2.48	1.70	1.87	1.40
2	-------	1.70	1.66	2.14	2.32	2.81	2.49	2.66	2.38	1.69	1.80	1.40
3	-------	1.70	1.66	2.08	2.29	2.65	2.41	2.76	2.32	1.65	1.69	1.38
4	-------	1.70	1.60	2.07	2.29	2.53	2.35	2.51	2.26	1.65	1.65	1.38
5	2.15	1.70	1.63	2.02	2.29	2.45	2.33	2.51	2.18	1.80	1.62	1.38
6	2.15	1.70	1.68	1.99	2.29	2.48	2.21	2.52	2.08	1.72	1.60	1.38
7	2.15	1.70	1.72	1.97	2.38	2.49	2.17	2.46	2.06	1.67	1.60	1.40
8	2.15	1.70	1.74	2.02	2.33	2.50	2.15	2.42	2.06	1.79	1.60	1.37
9	2.15	1.70	1.88	1.92	2.72	2.55	2.13	2.36	2.04	1.91	1.99	1.36
10	2.14	1.70	1.99	1.82	4.18	2.61	2.12	2.49	1.96	1.81	1.80	1.38
11	2.12	1.70	1.82	1.80	5.62	2.69	2.15	3.96	1.70	1.75	1.70	1.39
12	2.08	1.70	1.76	1.88	8.31	2.59	2.15	3.56	1.66	1.69	1.60	1.39
13	2.04	1.70	1.72	1.88	5.78	2.62	2.05	3.21	1.66	1.64	1.72	1.52
14	1.99	1.70	1.78	1.88	4.12	2.59	1.99	3.10	1.87	1.59	1.68	1.52
15	1.94	1.70	1.85	1.88	3.85	2.56	1.99	2.89	1.87	1.55	1.65	1.52
16	1.84	1.70	1.85	1.88	3.62	2.54	1.97	2.69	1.92	1.55	1.56	1.69
17	1.79	1.71	1.86	2.04	3.35	2.52	1.96	2.89	1.81	1.73	1.52	1.60
18	1.81	1.71	2.09	2.04	3.08	2.52	1.91	2.81	1.81	1.63	1.52	1.58
19	1.81	1.71	2.30	1.94	2.94	2.84	2.06	2.61	1.76	1.60	1.50	1.73
20	1.72	1.71	2.22	1.96	2.87	2.81	2.20	2.55	1.71	1.55	1.50	1.56
21	1.77	1.71	2.18	1.98	2.82	2.66	2.20	2.45	1.72	1.65	1.47	1.48
22	1.74	1.71	2.25	1.94	2.91	2.62	2.15	2.44	1.72	2.57	1.46	1.47
23	1.72	1.71	2.25	2.00	3.35	2.57	2.07	2.43	1.76	2.62	1.45	1.46
24	1.72	1.70	2.29	2.08	3.43	2.51	2.02	2.79	1.70	2.48	1.44	1.48
25	1.70	1.68	2.15	2.14	3.23	2.46	1.96	2.91	1.88	2.16	1.42	1.47
26	1.71	1.66	2.22	2.04	3.47	2.41	1.98	3.58	1.87	1.88	1.42	1.45
27	1.76	1.64	2.46	1.98	3.22	2.43	2.08	3.31	1.77	1.85	1.42	1.42
28	1.72	1.64	2.42		2.98	2.53	1.98	3.14	1.75	1.83	1.40	1.42
29	1.71	1.64	2.32			2.54	1.96	2.96	1.73	1.75	1.40	1.44
30	1.71	1.61	2.28		-------	2.54	2.15	2.88	1.79	1.69	1.40	1.42
31	1.70	-------	2.36		-------	2.51	-------	2.65	-------	1.53	1.40	-------

Note.—Gage height Oct. 1-4 unsatisfactory and Jan. 28-31 not observed. Stage-discharge relation Dec. 14-16 and Dec. 21 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of Bald Eagle Creek at Beech Creek Station, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,120	225	193	260	170	1,020	715	678	715	225	305	120
2	1,370	225	180	280	200	940	715	828	640	221	270	120
3	678	225	180	280	220	828	640	902	570	205	221	115
4	535	225	185	260	200	752	605	715	535	205	205	115
5	468	225	197	240	170	678	605	715	500	270	193	115
6	468	225	217	240	150	715	500	715	435	234	185	115
7	468	225	234	220	150	715	468	678	405	213	185	120
8	468	225	243	220	380	715	468	640	405	266	185	112
9	468	225	310	200	865	752	468	605	405	326	370	110
10	468	225	320	190	2,400	790	435	715	353	275	270	115
11	435	225	280	180	4,680	865	468	2,140	225	248	225	115
12	435	225	252	180	10,600	790	468	1,680	200	221	185	118
13	405	225	234	180	5,040	790	405	1,280	269	201	234	157
14	370	225	220	170	2,270	790	370	1,180	305	182	217	157
15	342	225	200	170	1,910	752	370	1,020	305	168	205	157
16	290	225	220	160	1,680	752	358	865	331	168	171	221
17	266	230	300	160	1,470	715	353	1,020	275	238	157	185
18	275	230	435	160	1,180	715	326	940	275	197	157	178
19	275	230	570	150	1,000	980	405	790	252	185	150	238
20	234	230	506	150	980	940	500	752	238	198	150	171
21	256	230	440	150	980	828	500	678	234	205	141	144
22	243	230	360	150	1,020	790	468	678	234	752	138	141
23	254	230	300	140	1,470	752	405	678	225	290	135	138
24	234	225	266	140	1,470	715	375	1,910	225	715	132	144
25	225	217	240	140	1,280	678	353	2,020	310	468	129	141
26	230	209	220	140	1,580	640	364	1,680	305	310	126	135
27	225	201	220	150	1,280	678	435	1,370	256	295	126	126
28	234	201	220	180	1,100	752	364	1,180	248	285	120	126
29	250	201	220	180		752	353	1,060	238	248	120	132
30	230	201	240	160	-------	752	468	1,020	266	221	120	126
31	225	-------	240	150	-------	715	-------	828	-------	160	120	-------

Note.—Discharge estimated Oct. 1-4, because of unsatisfactory gage height record, from discharge of Bald Eagle Creek at Milesburg, and Dec. 2, 3, 14-16 and Dec. 21 to Feb. 8, because of ice, from weather records, study of gage height graph and comparison with similar studies for Bald Eagle Creek at Milesburg, West Branch Susquehanna River at Bower, Pine Creek at Cedar Run, Lycoming Creek near Trout Run and Frankstown Branch Juniata River at Williamsburg.

Monthly discharge of Bald Eagle Creek at Beech Creek Station, for the year ending September 30, 1925.

(Drainage area 565 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	3,120	225	465	0.823	0.95
November	250	201	222	.393	.44
December	570	180	272	.481	.55
January	280	140	185	.327	.38
February	10,600	150	1,640	2.90	3.02
March	1,020	640	776	1.37	1.58
April	715	326	458	.811	.90
May	2,140	605	1,030	1.82	2.10
June	715	209	338	.598	.67
July	790	160	286	.506	.58
August	370	120	182	.322	.37
September	238	110	140	.248	.28
The Year	10,600	110	493	.873	11.82

SUSQUEHANNA BASIN—STATION NO. 19

PINE CREEK AT CEDAR RUN

Location.—At single-span steel highway bridge, Cedar Run, Lycoming County.

Drainage Area.—590 square miles.

Records Available.—July 19, 1918, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by C. R. Nivison. Elevation of gage zero 781.96 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Right bank is high; left is low but not subject to overflow. Bed is composed of gravel. Control is at a riffle, where the bed is composed of gravel, about 500 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, 7.20 feet observed at 8 a.m. February 12 (discharge, about 11,500 second-feet); minimum, 1.01 feet at 5 p.m. September 4 and 5 (discharge, 25 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 50 and 2,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for high stages when they are fair.

Discharge measurements of Pine Creek at Cedar Run, during the year ending September 30, 1925.

No.	Date	Made by	Gage Height	Discharge
			Feet	Sec. ft.
20	July 24a	J. M. Snavely	1.39	185
21	24a	do	1.39	177
22	Sept. 17b	H. J. McIntyre,	1.35	145
23	17b	do	1.35	134

a Measurement made by wading 2,000 feet upstream from gage.
b Measurement made by wading 1,000 feet upstream from gage.

Daily Mean Gage Height, in feet, of Pine Creek at Cedar Run, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.08	1.30	1.30	1.94	2.09	2.94	2.72	2.79	2.14	1.50	1.42	1.05
2	3.18	1.32	1.32	2.00	2.17	2.82	2.66	2.72	2.07	1.38	1.36	1.03
3	2.67	1.32	1.32	2.04	2.24	2.67	2.57	2.55	1.97	1.36	1.32	1.02
4	2.41	1.29	1.32	2.12	2.20	2.51	2.46	2.71	1.88	1.37	1.28	1.02
5	2.20	1.28	1.30	2.12	2.19	2.38	2.40	3.14	1.78	1.36	1.30	1.02
6	2.09	1.29	1.32	2.01	2.24	2.29	2.28	2.90	1.75	1.33	1.36	1.02
7	1.99	1.30	1.40	1.97	2.21	2.30	2.21	2.70	1.69	1.46	1.34	1.06
8	1.92	1.30	1.52	2.12	2.24	2.55	2.17	2.69	1.64	1.42	1.30	1.08
9	1.82	1.28	1.83	2.10	2.33	2.57	2.13	2.53	1.64	1.40	1.38	1.10
10	1.70	1.31	1.80	2.09	4.29	2.52	2.10	2.56	1.59	1.42	1.42	1.08
11	1.62	1.32	1.67	2.10	5.08	2.54	2.29	2.82	1.56	1.41	1.34	1.06
12	1.59	1.28	1.66	2.04	6.60	2.62	2.18	2.72	1.57	1.37	1.25	1.08
13	1.58	1.23	1.66	1.93	5.22	2.53	2.09	2.66	1.52	1.32	1.28	1.10
14	1.58	1.24	1.63	1.82	4.06	2.54	2.03	2.65	1.46	1.29	1.40	1.26
15	1.58	1.22	1.70	1.78	3.49	2.44	2.10	2.56	1.43	1.23	1.50	1.36
16	1.50	1.21	1.69	1.78	3.28	2.43	2.06	2.52	1.42	1.21	1.36	1.36
17	1.47	1.40	1.75	1.83	3.09	2.52	2.02	2.95	1.39	1.47	1.28	1.34
18	1.47	1.38	2.16	1.91	2.79	2.54	1.96	2.82	1.40	1.47	1.26	1.25
19	1.46	1.42	2.44	1.87	2.61	3.12	2.05	2.70	1.38	1.41	1.22	1.22
20	1.45	1.36	2.72	1.86	2.46	3.14	2.76	2.61	1.32	1.29	1.21	1.20
21	1.38	1.32	2.59	1.89	2.42	3.06	2.57	2.48	1.30	1.23	1.31	1.20
22	1.44	1.38	2.52	1.88	2.68	2.91	2.53	2.40	1.28	1.66	1.22	1.20
23	1.46	1.38	2.42	1.89	3.60	2.77	2.48	2.36	1.29	1.62	1.19	1.20
24	1.44	1.39	2.40	1.88	4.06	2.62	2.40	2.47	1.30	1.40	1.14	1.16
25	1.38	1.37	2.20	1.94	3.82	2.42	2.30	2.81	1.54	1.28	1.14	1.15
26	1.34	1.30	1.99	1.94	3.81	2.37	2.92	2.74	1.64	1.28	1.11	1.14
27	1.36	1.34	1.90	1.88	3.38	2.48	2.57	2.62	1.52	1.57	1.10	1.10
28	1.38	1.42	1.82	1.89	3.06	3.10	2.35	2.44	1.37	1.46	1.08	1.12
29	1.34	1.36	1.80	1.91	-------	2.97	2.56	2.39	1.44	1.51	1.08	1.12
30	1.31	1.33	1.90	1.93	-------	2.87	2.56	2.49	1.58	1.45	1.06	1.14
31	1.33	-------	1.91	1.99	-------	2.82	-------	2.34	-------	1.42	1.06	-------

Note.—Stage-discharge relation Nov. 17-22, Nov. 27 to Dec. 7, Dec. 12-16 and Dec. 22 to Feb. 10 affected by ice.

Daily discharge, in second-feet, of Pine Creek at Cedar Run, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,120	115	100	280	160	1,350	1,050	1,170	526	191	160	36
2	1,670	122	90	300	190	1,170	995	1,050	458	145	137	39
3	995	122	90	320	240	995	885	885	410	137	122	28
4	735	112	90	320	220	830	782	1,050	363	141	108	28
5	562	108	90	320	200	735	735	1,540	314	137	115	28
6	489	112	100	320	180	644	644	1,290	300	126	137	28
7	421	115	120	300	180	644	562	1,050	272	175	130	39
8	384	115	199	300	190	885	526	1,050	250	160	115	44
9	333	108	338	280	240	885	526	885	250	152	145	50
10	276	119	323	260	550	830	489	885	228	160	160	44
11	241	122	263	240	5,320	885	644	1,170	216	156	130	39
12	228	108	220	240	9,480	940	562	1,050	220	141	98	44
13	224	91	200	240	5,570	885	489	995	199	122	108	50
14	224	95	220	220	3,120	885	458	995	175	112	152	137
15	224	88	220	220	2,070	782	489	885	164	91	191	137
16	191	84	260	220	1,800	782	458	830	160	84	137	137
17	179	70	360	220	1,540	830	426	1,350	148	179	108	130
18	179	65	526	200	1,170	885	405	1,170	152	179	101	98
19	175	65	782	200	940	1,540	458	1,050	145	156	88	88
20	172	65	1,050	200	782	1,540	1,110	940	122	112	84	81
21	145	65	940	200	735	1,540	885	830	115	91	119	81
22	138	80	650	200	1,050	1,290	885	735	108	258	88	81
23	175	145	480	190	2,220	1,110	830	690	112	941	78	81
24	168	148	400	190	3,120	940	735	782	115	152	62	69
25	145	141	340	180	2,550	735	644	1,170	207	108	62	66
26	130	115	300	170	2,550	690	1,290	1,110	250	108	53	62
27	137	110	300	160	1,930	830	885	946	199	220	50	50
28	145	100	280	160	1,540	1,540	995	782	141	175	44	56
29	130	100	280	160		1,350	885	735	168	195	44	56
30	119	100	280	150	-------	1,230	885	830	224	172	39	62
31	126	-------	280	150	-------	1,170	-------	690	-------	160	39	-------

Note.—Discharge Nov. 17-22, Nov. 27 to Dec. 7, Dec. 12-16 and Dec. 22 to Feb. 10 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Driftwood Branch Sinnemahoning Creek at Sterling Run, Lycoming Creek near Trout Run, Towanda Creek near Monroeton and Allegheny River near Larabee.

Monthly discharge of Pine Creek at Cedar Run, for the year ending September 30, 1925. (Drainage area 590 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	3,120	119	407	0.690	0.80
November	148	65	104	.176	.20
December	1,050	90	326	.553	.64
January	320	150	229	.388	.45
February	9,480	160	1,780	3.02	3.14
March	1,540	644	1,010	1.71	1.97
April	1,290	465	720	1.22	1.36
May	1,540	690	987	1.67	1.92
June	526	108	224	.380	.42
July	258	84	153	.259	.30
August	191	39	103	.175	.20
September	137	28	65.6	.111	.12
The Year	9,480	28	501	.849	11.52

SUSQUEHANNA BASIN—STATION NO. 20

LYCOMING CREEK NEAR TROUT RUN

Location.—At single-span steel highway bridge, about two and one-half miles upstream from Trout Run, Lycoming County.

Drainage Area.—185 square miles.

Records Available.—December 4, 1913, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by E. L. and Earl Apker. Elevation of gage zero 693.4 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—The right bank overflows during extremely high stages; the left is high and does not overflow. The bed is composed of gravel and large stones. Control is at a riffle about 100 feet downstream from the gage, where the bed is composed of gravel; probably permanent.

Extremes of Discharge.—Maximum stage during the year, 9.50 feet observed at 5.15 p.m. February 11 (discharge, about 4,800 second-feet); minimum, 1.85 feet at 8 a.m. September 13 (discharge, 30 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined from 30 to 3,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

The following discharge measurement was made by H. J. McIntyre: No. 56, July 23: Gage height, 2.64 feet; discharge, 178 second-feet.

Daily Mean Gage Height, in feet, of Lycoming Creek near Trout Run, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.30	2.08	2.20	2.41	2.55	3.31	3.35	2.40	2.69	2.28	2.21	1.92
2	4.18	2.08	2.19	2.40	2.52	3.28	3.28	2.36	2.56	2.18	2.24	1.90
3	3.65	2.08	2.18	2.41	2.52	3.26	3.21	2.32	2.78	2.08	2.16	1.88
4	3.25	2.09	2.18	2.39	2.56	3.26	3.12	2.40	2.52	2.05	2.26	1.88
5	2.98	2.08	2.24	2.30	2.49	3.24	3.02	3.01	2.45	2.08	2.19	1.86
6	2.75	2.08	2.27	2.26	2.34	3.22	2.94	3.01	2.39	2.04	2.16	1.86
7	2.61	2.08	2.25	2.23	2.29	3.21	2.90	2.86	2.32	2.41	2.30	1.92
8	2.55	2.06	2.70	2.22	2.28	3.20	2.86	2.81	2.34	2.28	2.18	1.88
9	2.51	2.05	2.70	2.20	2.50	3.21	2.80	2.74	2.34	2.18	2.32	1.88
10	2.49	2.05	2.56	2.21	4.84	3.24	3.00	2.76	2.30	2.10	2.55	1.90
11	2.47	2.05	2.49	2.20	7.22	3.20	2.92	3.59	2.32	2.06	2.36	1.88
12	2.45	2.05	2.49	2.22	7.20	3.18	2.84	3.72	2.26	2.00	2.26	1.86
13	2.43	2.05	2.42	2.24	5.25	3.20	2.78	3.45	2.18	1.98	2.22	1.92
14	2.40	2.12	2.46	2.28	4.48	3.21	2.86	3.30	2.15	1.96	2.28	2.21
15	2.36	2.11	2.46	2.36	4.07	3.18	2.91	3.12	2.11	1.95	2.25	2.58
16	2.31	2.09	2.44	2.44	3.99	3.13	2.86	3.07	2.08	2.02	2.15	2.52
17	2.29	2.05	2.58	2.32	3.78	3.14	2.82	3.75	2.06	2.37	2.08	2.38
18	2.28	2.00	2.80	2.22	3.60	3.35	2.68	3.35	2.05	2.16	2.06	2.24
19	2.27	1.98	3.00	2.16	3.36	3.85	2.63	3.18	2.04	2.05	2.02	2.14
20	2.27	2.00	3.02	2.05	3.22	3.80	2.58	3.08	2.03	2.02	2.08	2.09
21	2.25	2.03	2.96	2.08	3.16	3.65	2.54	2.98	2.02	2.10	2.14	2.08
22	2.23	3.65	2.89	2.18	3.28	3.51	2.50	2.89	2.00	3.23	2.11	2.04
23	2.22	3.50	2.86	2.33	3.18	3.32	2.46	2.84	2.00	2.73	2.06	2.00
24	2.21	2.67	2.82	2.40	3.45	3.22	2.44	3.05	1.98	2.35	2.01	1.95
25	2.19	2.39	2.78	2.32	3.97	3.19	2.44	3.36	2.18	2.22	1.98	1.94
26	2.18	2.34	2.77	2.33	3.95	3.10	2.44	3.23	2.12	2.20	1.98	1.94
27	2.18	2.30	2.76	2.36	3.60	3.18	2.40	3.02	2.02	2.18	1.96	1.95
28	2.17	2.24	2.74	2.38	3.42	3.88	2.38	2.92	2.06	2.24	1.96	1.96
29	2.16	2.20	2.68	2.42	-------	3.72	2.36	2.86	2.28	2.60	1.95	1.94
30	2.16	2.20	2.62	2.46	-------	3.58	2.34	2.84	2.48	2.36	1.94	1.91
31	2.14	-------	2.50	2.48	-------	3.46	-------	2.82	-------	2.21	1.93	-------

Note.—Stage-discharge relation Dec. 13-17, Dec. 21 to Jan. 2, Jan. 10-19 and Jan. 21 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of Lycoming Creek near Trout Run, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,180	52	68	85	55	335	350	101	165	81	70	36
2	665	52	67	90	70	335	335	94	131	65	74	34
3	435	52	65	103	85	320	305	87	190	52	62	33
4	320	53	65	99	80	320	275	101	120	48	78	33
5	245	52	74	84	70	320	245	245	110	52	67	31
6	178	52	79	78	60	305	231	245	99	47	62	31
7	142	52	76	73	65	305	217	204	87	103	84	36
8	131	50	165	71	70	305	204	190	91	81	65	33
9	120	48	165	68	120	305	190	178	91	65	87	33
10	118	48	131	65	930	320	245	178	84	54	131	34
11	114	48	118	60	2,490	305	217	435	87	50	94	33
12	110	48	107	60	2,490	305	204	470	78	43	78	31
13	107	48	90	55	1,130	305	190	382	65	41	71	36
14	101	57	85	55	790	305	204	335	61	39	81	70
15	94	55	85	55	625	305	217	275	55	38	76	142
16	86	53	85	55	585	290	204	260	52	45	61	120
17	82	48	100	50	505	290	190	505	50	96	52	98
18	81	43	190	50	435	350	165	350	48	62	50	74
19	79	41	245	48	350	505	154	305	47	48	45	60
20	79	45	245	48	305	505	142	275	46	45	52	53
21	76	46	220	46	290	435	131	245	45	54	60	52
22	73	435	180	44	335	400	120	217	43	320	55	47
23	71	400	160	42	305	335	112	204	43	178	50	43
24	70	154	140	42	332	305	109	260	41	92	44	38
25	67	99	120	42	585	305	109	350	65	71	41	38
26	65	91	110	40	585	275	109	320	57	68	41	38
27	65	84	100	40	435	305	101	245	45	65	39	38
28	64	74	90	42	365	545	98	217	50	74	39	39
29	62	68	90	42	-------	470	94	204	81	142	38	38
30	62	68	85	42	-------	435	91	204	116	94	38	35
31	60	-------	85	48	-------	382	-------	190	-------	70	37	-------

Note.—Discharge Dec. 13-17, Dec. 21 to Jan. 2, Jan. 10-19 and Jan. 21 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Pine Creek at Cedar Run, Towanda Creek near Monroeton and Fishing Creek at Bloomsburg.

Monthly discharge of Lycoming Creek near Trout Run, for the year ending September 30, 1925.

(Drainage area 185 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	1,180	60	168	0.908	1.05
November	435	41	83.8	.453	.51
December	245	65	119	.643	.74
January	103	40	58.8	.318	.37
February	2,490	55	521	2.82	2.94
March	545	275	349	1.89	2.18
April	350	91	185	1.00	1.12
May	505	87	254	1.37	1.58
June	190	41	78.1	.422	.47
July	320	38	76.9	.416	.43
August	131	37	62.0	.335	.39
September	142	31	48.6	.263	.29
The Year	2,490	31	165	.892	12.12

SUSQUEHANNA BASIN—STATION NO. 21

WEST BRANCH SUSQUEHANNA RIVER AT WILLIAMSPORT

Location.—At five-span steel highway bridge, Market Street, Williamsport, Lycoming County.

Drainage Area.—5,670 square miles.

Records Available.—March 1, 1895, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by Miss Veronica E. April. Elevation of gage zero 494.55 feet, United States Geological Survey datum.

Discarge Measurements.—Made from upstream side of bridge or by wading.

Channel and Control.—Both banks are high and rocky. Bed is composed of silt and gravel; shifts slightly. Control probably permanent.

Extremes of Discharge.—Maximum stage during the year, 19.52 feet observed at 5.15 p. m. February 12 (discharge, about 125,000 second-feet); minimum, 0.08 foot at 8 a. m. September 2 and from 8 a. m. to 5 p. m. September 3 (discharge, 668 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined below 2,000 second-feet and well defined between 2,000 and 120,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for low stages when they are fair.

Discharge measurements of West Branch Susquehanna River at Williamsport, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
52	July 23	J. M. Snavely	2.26	3,910
53	Sept. 17	do	.67	1,000
54	19	H. J. McIntyre	.56	1,060

Daily Mean Gage Height, in feet, of West Branch Susquehanna River at Williamsport, for the year ending September 30, 1925.

Day	Oct.	Nov	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.22	0.55	0.28	1.71	1.39	5.55	4.19	2.41	3.51	1.24	1.67	0.16
2	7.17	.52	.22	1.93	1.48	4.99	3.92	2.79	3.14	1.21	1.41	.09
3	5.30	.49	.21	1.59	1.36	4.19	3.68	3.18	2.91	1.02	1.24	.08
4	4.12	.47	.34	1.49	1.29	3.60	3.52	3.52	2.68	.89	1.14	.10
5	3.50	.47	.35	1.60	1.41	3.39	3.25	3.55	2.36	.94	1.05	.10
6	2.95	.50	.44	1.42	1.65	3.39	2.98	3.70	2.05	.89	.92	.11
7	2.57	.49	.56	1.36	2.17	3.67	2.82	4.14	1.86	.85	.92	.10
8	2.26	.50	.67	1.24	2.20	3.87	2.52	4.14	1.75	.95	.81	.10
9	2.05	.44	1.17	1.06	2.63	4.19	2.38	4.02	1.80	1.16	.94	.18
10	1.85	.45	2.25	1.27	5.65	3.82	2.28	3.91	2.10	1.15	1.42	.18
11	1.67	.44	2.46	1.05	14.71	3.91	2.31	4.27	1.72	1.03	1.24	.11
12	1.47	.41	2.04	1.06	18.68	3.90	2.38	5.23	1.51	.90	.98	.10
13	1.35	.37	1.94	1.01	16.05	3.91	2.32	5.89	1.32	.78	.84	.26
14	1.23	.39	1.70	1.09	11.12	4.36	2.29	5.70	1.13	.69	.73	.37
15	1.19	.48	1.25	1.14	8.65	4.12	2.18	5.22	1.15	.62	.82	.42
16	1.16	.43	1.82	.91	7.35	3.92	1.97	4.67	1.27	.71	.87	.81
17	.99	.41	1.95	.79	6.63	3.93	1.96	4.64	1.17	.85	.84	.69
18	.94	.35	2.17	.75	5.77	3.92	1.92	4.87	1.06	.81	.75	.60
19	.88	.29	4.32	.80	5.27	4.08	1.95	4.71	.91	.64	.63	.52
20	.87	.38	5.60	1.20	4.60	4.10	2.05	4.53	.86	.61	.58	.46
21	.87	.39	5.32	1.09	4.29	4.13	2.24	4.32	.80	.56	.54	.46
22	.80	.55	4.50	1.02	4.26	4.72	2.20	3.75	.68	1.28	.45	.45
23	.73	.88	3.91	.95	4.95	4.65	2.14	3.23	.58	2.32	.44	.39
24	.67	.89	3.25	1.04	7.03	4.16	2.07	3.89	.57	3.34	.41	.33
25	.63	.75	3.20	1.09	7.39	3.99	2.04	5.29	.77	2.60	.41	.29
26	.62	.77	2.10	.94	6.86	3.68	2.06	6.31	.94	1.75	.39	.25
27	.63	.62	2.17	.99	6.64	3.46	2.06	5.99	1.33	1.43	.36	.19
28	.60	.50	1.27	1.00	5.94	3.94	2.00	5.59	1.23	1.37	.29	.19
29	.59	.43	1.42	1.05	-------	4.41	1.98	4.95	1.04	1.87	.27	.17
30	.58	.42	1.34	1.05	-------	4.48	2.04	4.58	1.12	1.92	.25	.17
31	.56	-------	1.23	1.10	-------	4.52	-------	4.17	-------	1.77	.24	-------

Note.—Stage-discharge relation Dec. 29, 30, Jan. 9, 10, 15 and Jan. 20 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of West Branch Susquehanna River at Williamsport, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	34,600	1,300	914	3,370	1,800	16,200	10,400	4,980	8,060	2,400	3,370	762
2	23,900	1 230	836	3,800	2,200	13,600	9,350	6,000	6,850	2,400	2,770	679
3	14,900	1,220	823	3,180	2,000	10,400	8,700	7,140	6,280	2,040	2,400	668
4	10,600	1,180	996	2,960	1,900	8,380	8,060	8,060	5,730	1,860	2,220	690
5	8,060	1,180	1,010	3,160	1,900	7,750	7,140	8,380	4,980	1,950	2,040	690
6	6,560	1,230	1,140	2,770	2,200	7,750	6,560	8,700	4,020	1,860	1,860	702
7	5,470	1,220	1,300	2,770	2,600	8,700	6,000	10,000	3,800	1,780	1,860	690
8	4,730	1,230	1,460	2,400	3,000	9,350	5,220	10,000	3,580	1,950	1.690	690
9	4,020	1,140	2,400	2,400	5,470	10,400	4,980	9,690	3,580	2,400	1,950	786
10	3,580	1,160	4,490	2,200	16,200	9,020	4,730	9,350	4,260	2,400	2,770	786
11	3,370	1,140	5,220	2,040	75,600	9,350	4,730	10,800	3,370	2,040	2,400	702
12	2,960	1,100	4,020	2,220	116,000	9,350	4,980	14,500	2,960	1,860	2,040	690
13	2,770	1,040	3,800	2,040	88,400	9,350	4,730	17,600	2,580	1,690	1,780	888
14	2,400	1,070	3,370	2,040	46,000	11,200	4,730	16,700	2,220	1,530	1,610	1,040
15	2,400	1,200	2,400	2,000	31,200	10,000	4,490	14,500	2,400	1,380	1,690	1,110
16	2,400	1,120	3,580	1,860	24,400	9,350	4,020	12,300	2,580	1,530	1,780	1,690
17	2,040	1,100	4,020	1,690	20,900	9,350	4,020	11,900	2,400	1,780	1,780	1,530
18	1,950	1,010	4,490	1,610	17,200	9,350	3,800	13,200	2,220	1,690	1.610	1,380
19	1,860	927	10,800	1,690	14,900	10,000	4,020	12,300	1,860	1,460	1,460	1,230
20	1,780	1,050	16,200	1,600	11,900	10,000	4,020	11,500	1,780	1,380	1,380	1,170
21	1,780	1,070	14,900	1,600	10,800	10,000	4,490	10,800	1,690	1,300	1,300	1,170
22	1,690	1,300	11,500	1,600	10,400	12,300	4,490	9,020	1,530	2,580	1,160	1,160
23	1,610	1,860	9,350	1,600	13,600	11,900	4,260	7,140	1,380	4,730	1,140	1,070
24	1,460	1,860	7,140	1,600	22,900	10,400	4,260	9,350	1,300	4,730	1,100	982
25	1,460	1,610	7,140	1,600	24,900	9,690	4,020	14,900	1,610	5,470	1,100	927
26	1,380	1,460	6,850	1,500	22,400	8,700	4,260	19,500	1,950	3,580	1,070	875
27	1,460	1,380	4,490	1,500	20,900	8,060	4,260	18,100	2,580	2,770	1,020	798
28	1,380	1,230	2,580	1,500	17,600	9,350	4,020	16,200	2,400	2,770	927	798
29	1,380	1,120	2,400	1,500	-------	11,200	4,020	13,600	2,040	3,800	901	774
30	1,380	1,110	2,400	1,500	-------	11,500	4,020	11,900	2,220	3,800	875	774
31	1,300	-------	2,580	1,600	-------	10,800	-------	10,400	-------	3,580	862	-------

Note.—Discharge Dec. 29, 30, Jan. 9, 10, 15 and Jan. 20 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for West Branch Susquehanna River at Bower and Renovo.

Monthly discharge of West Branch Susquehanna River at Williamsport, for the year ending September 30, 1925.

(Drainage area 5,670 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	34,600	1,300	5,030	0.887	1.02
November	1,860	927	1,230	.217	.24
December	16,200	823	4,660	.822	.95
January	3,800	1,500	2,090	.369	.43
February	116,000	1,800	22,500	3.97	4.13
March	16,200	7,750	10,100	1.78	2.05
April	10,400	3,800	5,230	.922	1.03
May	13,500	4,980	11,600	2.05	2.36
June	8,060	1,300	3,140	.554	.62
July	5,470	1,300	2,470	.436	.50
August	3,370	862	1,670	.295	34
September	1,690	679	930	.164	.18
The Year	116,000	679	5,780	1.02	13.85

SUSQUEHANNA BASIN—STATION NO. 22

LOYALSOCK CREEK AT LOYALSOCK

Location.—At single-span steel highway bridge, Loyalsock, Lycoming County.

Drainage Area—453 square miles.

Records Available.—July 27 to Sept. 30, 1925.

Gages.—Gurley 7-day water-stage recorder about 15 feet downstream from the left abutment and staff gage attached to outside of automatic gage well. The staff gage is on the stream side of the well; it is sloping from 0 to 6.5 feet and vertical from 6.5 to 14 feet. Recorder inspected and staff gage read by J. S. Whitmoyer. Elevation of gage zeros 585.63 feet, United State Geological Survey datum.

Channel and Control.—The right bank is high, steep and rocky and does not overflow; the left is low but not subject to overflow except during extremely high stages. Bed is composed of rock and gravel. Control is at the remains of an old dam about 500 feet downstream from the gage, where there is a pronounced change in stream slope and where the bed is composed of compact gravel; probably permanent.

Extremes of Discharge.—Maximum stage during the period July 27 to September 30, estimated from hydrograph, 4.2 feet at noon September 16 (discharge, 1,030 second-feet); minimum, 2.77 feet from 6 p.m. September 4 to 6 p.m. September 5 (discharge, 80 second-feet).

Accuracy.—Stage-discharge relation permanent. Rating curve well defined. Gage read to hundredths twice daily. Previous to August 10th daily discharge was ascertained by applying daily mean gage height, determined from staff gage readings, to rating table. Subsequent discharge was ascertained by applying rating table to daily mean gage height, determined from staff gage readings used in conjunction with automatic gage charts.

Cooperation.—Record furnished by Robert O. Hayt, Consulting Engineer, Corning N. Y.

Discharge measurements of Loyalsock Creek at Loyalsock, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec. ft.
1	Aug. 12a	C. E. Smoek	3.30	288
2	Sept. 16	J. M. Snavely	4.14	1,190

a Measurement made by wading 300 feet downstream from gage.

Daily Mean Gage Height, in feet, of Loyalsock Creek at Loyalsock, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												
2											3.28	2.82
3												2.82
4												2.79
5												2.78
6											3.18	2.77
7												2.82
8												2.91
9												2.94
10												2.86
11											3.77	2.84
12											3.65	2.82
13											3.40	2.84
14											3.30	2.86
15											3.47	3.35
16											3.50	3.35
17											3.30	4.01
18											3.24	3.70
19											3.18	3.40
20											3.14	3.30
21											3.24	3.30
22											3.21	3.35
23											3.18	3.22
24											3.14	3.06
25											3.04	3.06
26											3.00	3.06
27											2.96	3.06
28										3.53	2.92	3.06
29										3.47	2.91	3.06
30										3.43	2.88	3.06
31										3.37	2.86	3.03
										3.28	2.86	

Note.—Station established July 27, 1925. Gage height Aug. 2-4 and 6-9 not observed.

Daily discharge, in second-feet, of Loyalsock Creek at Loyalsock, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1												
2											290	97
3											320	97
4											300	86
5											265	83
6											241	80
7											260	97
8											320	126
9											320	141
10											380	111
11											595	104
12											518	97
13											355	104
14											300	111
15											307	328
16											415	328
17											300	810
18											270	555
19											241	355
20											223	300
21											270	300
22											255	328
23											241	260
24											223	189
25											181	189
26											165	189
27											149	189
28										448	133	189
29										397	129	189
30										373	118	189
31										338	111	177
										290	111	

Note.—Station established July 27, 1925. Discharge Aug. 2-4 and 6-9 estimated, because of no gage height record, from discharge of Lycoming Creek near Trout Run and Towanda Creek near Monroeton.

Monthly discharge of Loyalsock Creek at Loyalsock, for the year ending September 30, 1925.

(Drainage area 453 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October					
November					
December					
January					
February					
March					
April					
May					
June					
July (27-31)	448	290	369	0.815	0.15
August	595	111	271	.598	.69
September	810	80	213	.470	.52
The Year					

Note.—Station established July 27, 1925.

SUSQUEHANNA BASIN—STATION NO. 23

SUSQUEHANNA RIVER AT SUNBURY

Location.—At twenty-eight-span steel bridge, Philadelphia & Reading Railway Company, Sunbury, Northumberland County.

Drainage Area.—18,200 square miles.

Records Available.—August 9, 1916, to September 30, 1925.

Gages.—Vertical staff attached to center of downstream end of first pier. Gage consists of a 2 inch plank 24 feet long faced with enameled scales graduated to feet and tenths. Read to half-tenths twice daily by W. E. Bayler; during high stages more frequently. Elevation of gage zero 419.00 feet, United States Geological Survey datum.

Previous to November 10, 1924, a staff gage painted on the left face of the first pier was used. The zero of the former gage was at elevation 420.00 feet. All of the records subsequent to September 30, 1923, are referred to the new gage.

Discharge Measurements.—Made from downstream side of highway bridge about 3,700 feet downstream from the gage.

Channel and Control.—Both banks are high but subject to overflow during extreme floods. Bed is composed of gravel and rock. Control is the remaining portion of the old Shamokin Dam about 6,800 feet downstream from the gage; permanent.

Extremes of Stage.—Maximum gage height during the year, estimated from hydrograph, 17.2 feet at 10 p. m. February 12; minimum, 0.8 foot from 7 a. m. September 5 to 5 p.m. September 7.

Ice.—Stage-discharge relation usually affected by ice.

The following discharge measurement was made by J. M. Snavely: No. 6, June 9: Gage height, 1.99 feet; discharge, 9,090 second-feet.

Gage heights obtained at this station are for Flood Warning purposes.

Daily Mean Gage Height, in feet, of Susquehanna River at Sunbury, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.5	1.55	1.72	1.7	2.6	5.9	5.1	3.1	3.08	1.72	2.4	1.0
2	11.45	1.4	1.7	1.7	2.2	5.2	5.0	3.15	2.85	1.85	2.25	.95
3	9.4	1.35	1.55	1.8	2.5	4.7	4.9	3.45	2.8	2.15	2.05	.9
4	7.3	1.3	1.5	2.05	2.4	4.3	4.75	3.75	2.8	2.2	1.85	.85
5	5.6	1.25	1.5	2.15	2.3	4.05	4.55	3.7	2.65	2.12	1.72	.8
6	4.55	1.25	1.5	2.2	2.32	3.75	4.25	3.76	2.45	2.1	1.7	.8
7	3.9	1.25	1.55	2.2	2.45	3.75	4.05	4.34	2.25	1.98	1.68	.8
8	3.55	1.25	1.62	2.25	2.65	3.8	3.75	4.19	2.05	2.05	1.7	.88
9	3.25	1.2	1.9	2.2	2.7	3.9	3.45	3.95	1.95	2.2	2.11	.9
10	2.95	1.2	2.0	2.25	3.27	4.0	3.3	3.79	1.98	2.1	2.55	.9
11	2.75	1.15	2.45	2.45	10.06	4.25	3.2	4.38	1.98	1.98	2.58	.9
12	2.58	1.15	2.6	3.2	16.25	4.45	3.1	4.45	1.82	1.82	2.3	.9
13	2.48	1.15	2.6	3.4	16.20	4.5	3.0	4.7	1.72	2.3	2.15	1.28
14	2.35	1.15	2.5	3.4	13.00	4.5	2.92	4.7	1.62	2.25	2.1	1.45
15	2.22	1.1	2.2	3.15	9.78	4.42	2.9	4.35	1.6	2.0	2.32	1.52
16	2.12	1.1	2.0	3.0	8.05	4.8	2.82	4.0	1.65	1.72	2.25	1.9
17	2.02	1.1	2.1	2.9	7.0	5.15	2.72	3.95	1.62	1.7	2.25	3.00
18	1.9	1.1	2.1	2.9	6.25	5.05	2.85	3.98	1.52	1.7	2.18	3.0
19	1.82	1.1	2.5	2.9	5.55	4.85	2.9	3.75	1.42	1.65	1.95	2.80
20	1.8	1.05	3.7	2.65	5.05	5.3	2.9	3.6	1.32	1.52	1.82	2.45
21	1.72	1.05	4.3	2.6	4.75	5.8	3.03	3.45	1.3	1.55	1.65	2.25
22	1.7	1.12	4.2	2.6	4.62	5.6	4.14	3.25	1.4	1.85	1.6	2.05
23	1.65	1.65	4.0	2.6	5.15	5.1	4.2	3.00	1.38	2.4	1.52	2.0
24	1.6	1.9	3.4	2.4	6.57	4.7	3.75	3.25	1.28	2.7	1.5	2.0
25	1.55	1.90	2.9	2.28	8.10	4.3	3.45	3.53	1.25	2.75	1.42	1.88
26	1.55	2.76	2.4	2.2	8.0	4.05	3.25	4.18	1.3	2.8	1.32	1.78
27	1.55	2.62	2.05	2.2	7.4	3.85	3.2	4.18	1.3	2.52	1.25	1.62
28	1.5	2.25	1.75	2.2	6.65	4.0	3.5	3.95	1.5	2.4	1.2	1.48
29	1.45	2.05	1.55	2.0	-------	4.5	3.35	3.65	1.5	2.32	1.15	1.4
30	1.4	1.85	1.7	2.0	-------	5.2	3.15	3.45	1.55	2.4	1.05	1.35
31	1.35	-------	1.7	2.0	-------	5.25	-------	3.25	-------	2.48	1.0	-------

Note.—Stage-discharge relation Dec. 30 to Jan. 2 and Jan. 5 to Feb. 11 affected by ice.

SUSQUEHANNA BASIN—STATION NO. 24

FRANKSTOWN BRANCH JUNIATA RIVER AT WILLIAMSBURG

Location.—At two-span steel highway bridge, Williamburg, Blair County.

Drainage Area.—295 square miles.

Records Available.—October 24, 1916, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by R. E. Rhule. Elevation of gage zero 831.78 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Both banks are high but subject to overflow at extremely high stages. Bed is composed of mud, gravel and small boulders. Control for low stages is a water main crossing the stream diagonally about 150 feet downstream from the gage; permanent. Medium and high stage control is at the first of a series of riffles about 450 feet downstream from the water main; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 12.4 feet at 3 a. m. February 12 (discharge, about 10,200 second-feet); minimum, 1.20 feet at 9 a. m. Sunday September 6, when a part of the stream flow may have been held in storage at some of the dams upstream from the station (discharge, 24 second-feet).

Ice.—Stage-discharge relation rarely affected by ice.

Regulation.—During low flows a part of the stream discharge may be held in storage, temporarily, at some of the dams upstream from the station.

Accuracy.—Stage-discharge relation permanent. Rating curve well defined between 70 and 2,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for extremely high stages when they are fair.

The following discharge measurement was made by H. J. McIntyre: No. 22, July 29: Gage height, 1.71 feet; discharge, 95.7 second-feet.

Daily Mean Gage Height, in feet, of Frankstown Branch Juniata River at Williamsburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.33	1.73	1.54	1.77	2.13	3.39	2.58	3.05	2.23	1.73	2.18	1.56
2	2.64	1.73	1.67	1.77	2.28	3.06	2.63	3.26	2.14	1.71	1.82	1.55
3	2.35	1.68	1.64	1.82	2.54	3.03	2.57	3.16	2.24	1.75	1.74	1.50
4	2.22	1.66	1.66	1.80	2.40	2.88	2.49	3.08	2.09	1.65	1.72	1.49
5	2.12	1.66	1.70	1.80	2.36	2.77	2.40	3.11	2.01	1.75	1.64	1.48
6	2.06	1.68	1.93	1.78	2.75	2.67	2.34	2.87	1.97	1.73	1.68	1.50
7	2.00	1.67	1.99	1.70	3.45	2.98	2.32	2.79	1.96	1.65	1.65	1.46
8	1.96	1.64	1.98	1.78	4.03	3.14	2.31	2.63	1.92	1.66	1.64	1.50
9	1.93	1.68	2.30	1.71	5.26	3.32	2.24	2.59	1.97	1.65	1.61	1.50
10	1.92	1.60	2.03	1.72	6.38	3.16	2.28	2.55	1.88	1.73	1.64	1.52
11	1.86	1.66	1.92	1.72	7.62	3.26	2.32	5.58	1.81	1.87	1.63	1.54
12	1.86	1.64	1.90	1.68	10.09	3.56	2.25	5.27	1.78	1.73	1.59	1.52
13	1.82	1.60	1.98	1.74	5.98	3.14	2.18	4.33	1.77	1.61	1.68	1.41
14	1.80	2.12	2.00	1.70	4.64	3.16	2.16	3.83	1.77	1.63	1.88	1.55
15	1.82	1.80	1.62	1.64	4.74	3.06	2.44	3.50	1.77	1.63	1.66	1.54
16	1.81	1.71	2.06	1.72	4.39	2.88	2.28	3.17	2.03	1.65	1.56	1.58
17	1.79	1.66	2.14	1.77	3.98	3.01	2.21	3.53	1.79	1.67	1.58	1.54
18	1.78	1.62	2.60	1.94	3.63	3.41	2.20	3.01	1.75	1.63	1.54	1.56
19	1.78	1.63	2.60	1.94	3.41	3.90	2.17	2.79	1.75	1.65	1.54	1.53
20	1.74	1.64	2.51	1.70	3.31	3.55	2.41	2.68	1.71	1.61	1.60	1.53
21	1.76	1.70	2.02	1.78	3.17	3.36	2.17	2.57	1.69	1.75	1.58	1.56
22	1.76	1.94	1.94	1.82	3.24	3.22	2.15	2.49	1.67	3.35	1.62	1.56
23	1.74	1.89	2.04	1.85	3.72	3.06	2.17	2.44	1.63	2.54	1.52	1.54
24	1.75	1.76	2.19	1.70	3.68	2.94	2.19	2.70	1.65	2.08	1.54	1.50
25	1.74	1.72	2.08	1.78	3.41	2.87	2.13	3.11	2.38	1.85	1.54	1.35
26	1.72	1.68	1.62	1.94	3.78	2.76	2.17	2.59	2.01	1.85	1.56	1.49
27	1.72	1.68	1.83	2.32	3.06	2.78	2.13	2.49	1.82	1.81	1.56	1.46
28	1.76	1.66	1.90	2.12	3.12	3.10	2.13	2.46	1.75	1.83	1.54	1.53
29	1.74	1.66	1.72	2.11	-------	2.79	2.29	2.43	1.72	1.77	1.58	1.55
30	1.70	1.74	1.76	1.97	-------	2.70	2.55	2.35	1.85	1.72	1.48	1.56
31	1.67	-------	1.87	2.08	-------	2.61	-------	2.28	-------	1.76	1.55	-------

Daily discharge, in second-feet, of Frankstown Branch Juniata River at Williamsburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	492	100	69	107	182	527	284	395	204	100	193	72
2	297	100	88	107	215	425	297	492	182	96	115	70
3	226	90	83	115	272	395	272	457	204	103	102	63
4	193	85	86	112	237	365	260	425	171	85	98	62
5	171	86	94	112	226	324	237	425	150	103	83	61
6	160	90	136	109	324	297	226	351	144	100	90	56
7	150	88	148	94	527	395	215	337	142	85	85	57
8	142	83	146	109	767	425	215	297	134	86	83	63
9	136	90	215	96	1,460	492	204	284	144	85	79	63
10	134	77	160	98	2,270	457	215	272	126	100	83	66
11	123	86	134	98	3,350	492	215	1,660	114	124	82	69
12	123	83	130	90	6,480	602	204	1,460	109	100	76	66
13	115	77	146	102	1,950	425	193	900	107	78	90	50
14	112	171	150	94	1,050	457	182	682	107	82	126	70
15	115	112	80	83	1,100	425	248	564	107	82	86	69
16	114	96	160	98	950	365	215	457	160	85	72	74
17	110	86	182	107	767	395	193	564	110	88	74	69
18	109	80	284	138	602	527	193	395	103	82	69	72
19	109	82	284	138	527	724	182	337	103	85	69	67
20	102	83	260	94	492	602	237	310	96	79	77	67
21	105	94	150	109	457	527	182	272	92	103	74	72
22	105	138	138	115	457	457	182	260	88	5-7	80	72
23	102	128	160	117	640	425	182	248	82	272	66	69
24	103	105	193	94	640	380	193	310	85	171	69	63
25	102	98	171	109	527	351	182	425	237	121	69	42
26	98	90	80	138	682	324	182	284	150	121	72	62
27	98	90	117	215	425	337	182	260	115	114	72	57
28	105	86	130	171	425	425	182	248	103	117	69	67
29	102	86	98	171	-------	337	215	248	98	107	74	70
30	94	102	105	144	-------	310	272	226	121	98	61	72
31	88	-------	124	171	-------	284	-------	215	-------	105	70	-------

Monthly discharge of Frankstown Branch Juniata River at Williamsburg, for the year ending September 30, 1925.

(Drainage area 295 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	492	88	140	0.475	0.55
November,	171	77	95.4	.325	.36
December,	284	69	145	.492	.57
January,	215	83	118	.400	.46
February,	6,480	182	1,000	3.39	3.53
March,	724	284	428	1.45	1.67
April,	297	182	215	.729	.81
May,	1,660	215	454	1.54	1.78
June,	237	82	130	.441	.49
July,	527	79	119	.403	.46
August,	193	51	84.1	.285	.33
September,	74	36	64.4	.218	.24
The Year,	6,480	36	244	.827	11.25

SUSQUEHANNA BASIN—STATION NO. 25

LITTLE JUNIATA RIVER AT TYRONE

Location.—At single-span steel highway bridge, Pennsylvania Avenue, Tyrone, Blair County.

Drainage Area.—107 square miles.

Records Available.—August 22, 1918, to December 31, 1919, and April 1, 1920, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read to hundredths twice daily by Chas. G. Waple; during high stages more frequently. Elevation of gage zero 877.04 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Both sides of the channel are outlined by retaining walls extending upstream and downstream from the bridge. Bed is composed of gravel and rock. Control is at a riffle about 700 feet downstream from the gage. Stage-discharge relation for medium and high stages is affected by backwater from Bald Eagle Creek, which confluences with the Little Juniata about 200 feet downstream from the gage.

Extremes of Stage.—Maximum gage height during the year, 6.95 feet observed at 5.45 p. m. February 11; minimum, 0.93 foot from 6.15 p. m. September 18 to 7.10 a. m. September 19.

Ice.—Stage-discharge relation usually affected by ice.

Gage heights obtained at this station are for Flood Warning purposes.

Discharge measurements of Little Juniata River at Tyrone, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
8	July 28	J. M. Snavely	2.40	160
9	28	do	2.51	167

Daily Mean Gage Height, in feet, of Little Juniata River at Tyrone, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.30	1.32	1.14	1.20	1.54	2.42	2.00	2.42	1.78	1.28	2.15	1.01
2	2.85	1.29	1.12	1.21	1.65	2.44	1.92	2.34	1.74	1.21	1.88	1.02
3	2.68	1.26	1.12	1.24	1.66	2.40	1.86	2.30	1.72	1.16	1.74	1.03
4	2.46	1.24	1.10	1.28	1.62	2.25	1.81	2.47	1.68	1.12	1.68	1.02
5	2.35	1.22	1.45	1.32	1.54	2.10	1.76	2.42	1.55	1.32	1.62	1.03
6	2.16	1.20	1.45	1.36	1.82	2.16	1.72	2.33	1.50	1.18	1.56	1.04
7	1.96	1.20	1.41	1.42	2.26	2.34	1.71	2.17	1.48	1.18	1.50	1.04
8	1.84	1.19	1.47	1.46	2.44	2.44	1.70	2.06	1.46	1.18	1.46	1.03
9	1.74	1.18	1.64	1.42	2.88	2.51	1.70	2.01	1.46	1.19	1.68	1.02
10	1.66	1.18	1.58	1.39	3.71	2.50	1.72	2.04	1.44	1.97	1.55	1.02
11	1.60	1.17	1.53	1.38	5.22	2.62	1.68	3.80	1.42	1.75	1.44	1.03
12	1.54	1.16	1.49	1.41	5.16	2.51	1.64	3.40	1.41	1.50	1.36	1.01
13	1.50	1.19	1.50	1.38	4.40	2.40	1.63	3.06	1.40	1.34	1.44	1.03
14	1.48	1.44	1.56	1.34	3.69	2.32	1.62	2.85	1.38	1.22	1.38	1.02
15	1.44	1.32	1.53	1.32	3.48	2.28	1.61	2.69	1.42	1.17	1.30	1.08
16	1.40	1.26	1.50	1.30	3.10	2.24	1.58	2.60	1.40	1.16	1.32	1.02
17	1.38	1.40	1.78	1.30	2.85	2.30	1.56	2.80	1.36	1.18	1.24	.96
18	1.36	1.34	2.04	1.36	2.82	2.46	1.52	2.42	1.32	1.12	1.21	.94
19	1.34	1.32	2.00	1.34	2.66	2.84	1.72	2.24	1.28	1.08	1.18	.94
20	1.32	1.26	1.98	1.31	2.46	2.62	1.74	2.16	1.24	1.05	1.16	.98
21	1.34	1.22	1.82	1.26	2.48	2.46	1.70	2.09	1.22	1.93	1.15	1.04
22	1.32	1.54	1.74	1.22	2.66	2.34	1.67	2.00	1.21	2.90	1.14	1.02
23	1.32	1.50	1.67	1.20	3.05	2.24	1.69	1.94	1.20	1.90	1.12	1.30
24	1.30	1.44	1.59	1.18	2.81	2.15	1.66	2.52	1.18	1.49	1.10	1.00
25	1.30	1.36	1.54	1.35	2.73	2.08	1.64	2.36	1.24	1.42	1.08	1.00
26	1.27	1.30	1.48	1.46	2.66	2.05	1.62	2.23	1.22	2.18	1.07	1.01
27	1.23	1.25	1.42	1.46	2.44	2.34	2.03	2.18	1.21	1.96	1.06	1.06
28	1.20	1.21	1.31	1.44	2.28	2.18	1.89	2.13	1.26	2.35	1.04	1.05
29	1.16	1.18	1.25	1.42	-------	2.08	1.62	2.06	1.48	1.92	1.04	1.04
30	1.14	1.16	1.22	1.44	-------	2.02	1.87	2.01	1.38	1.72	1.03	1.03
31	1.12	-------	1.22	1.48	-------	2.00	-------	1.91	-------	2.31	1.02	-------

RAYSTOWN BRANCH JUNIATA RIVER AT SAXTON

Location.—At two-span steel highway bridge, Saxton, Bedford County.

Drainage Area.—790 square miles.

Records Available.—August 31, 1911, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by George W. Darr. Elevation of gage zero 789.91 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Banks are high but subject to overflow during extremely high stages. Control was at a heavy boulder riffle 350 feet downstream from the gage until about the first of February, 1921, when a new one was formed by the reconstruction of the Huntingdon & Broad Top Mountain Railroad bridge 250 feet downstream from the gage, which was partially washed away during the high flow of November 29, 1921.

Extremes of Discharge.—Maximum stage during the year, 11.28 feet observed at noon February 12 (discharge, about 19,200 second-feet); minimum, 0.70 foot on September 1 (discharge, 110 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation probably permanent except when affected by ice. Rating curve fairly well defined below 12,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

The following discharge measurement was made by J. M. Snavely: No. 56, November 25: Gage height, 1.34 feet; discharge, 224 second-feet.

Daily Mean Gage Height, in feet, of Raystown Branch Juniata River at Saxton, for the ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.66	1.23	0.88	1.13	2.44	2.23	2.15	3.25	1.71	1.22	1.27	0.70
2	3.39	1.20	1.14	1.17	2.57	2.44	2.75	3.68	1.65	1.17	1.16	.74
3	2.68	1.19	1.16	1.19	2.67	2.30	2.16	3.47	1.70	1.15	1.33	.80
4	2.39	1.17	1.20	1.19	2.71	2.18	2.10	3.26	1.74	1.10	1.20	1.00
5	2.14	1.18	1.19	1.23	2.77	2.37	1.98	3.07	1.58	1.08	1.11	.98
6	1.98	1.17	1.23	1.17	2.78	2.13	1.95	2.85	1.46	1.02	1.05	.99
7	1.86	1.15	1.30	1.16	2.93	2.19	1.86	2.60	1.41	1.05	1.03	.97
8	1.79	1.16	1.56	1.22	4.28	2.27	1.83	2.45	1.42	1.05	.98	.95
9	1.65	1.14	1.51	1.17	5.79	2.43	1.81	2.28	2.08	1.06	.97	.98
10	1.58	1.15	1.47	1.13	6.04	2.46	1.80	2.20	2.32	1.06	.94	.93
11	1.53	1.14	1.48	1.15	6.96	2.47	1.84	4.38	1.70	1.05	.96	.98
12	1.48	1.15	1.41	1.11	10.29	2.72	1.89	6.17	1.52	1.02	.96	.96
13	1.43	1.13	1.37	1.15	6.55	2.96	1.78	4.75	1.39	1.05	1.00	1.01
14	1.40	1.20	1.32	1.13	4.84	2.61	1.73	4.05	1.34	1.02	1.13	1.08
15	1.37	1.16	1.07	1.11	4.24	2.61	1.77	3.55	1.32	1.05	1.03	1.06
16	1.34	1.14	1.37	1.16	4.84	2.48	1.77	3.18	1.32	1.01	1.03	1.05
17	1.35	1.19	1.50	1.21	4.08	2.59	1.74	3.11	1.23	.94	.97	1.02
18	1.32	1.18	1.51	1.21	3.73	2.88	1.69	3.12	1.16	.90	.95	1.00
19	1.30	1.16	1.49	1.17	3.45	3.58	1.70	2.73	1.25	.88	.87	.89
20	1.27	1.14	1.45	1.21	3.18	3.36	1.71	2.52	1.19	.89	.86	.81
21	1.27	1.16	1.31	1.19	3.06	3.28	1.71	2.38	1.17	1.11	.90	.76
22	1.24	1.31	1.29	1.25	2.88	3.04	1.64	2.24	1.12	1.35	.84	.78
23	1.23	1.28	1.40	1.25	2.95	2.92	1.60	2.12	1.13	1.55	.83	.76
24	1.20	1.47	1.53	1.21	3.13	2.65	1.62	2.19	1.12	1.63	.81	.76
25	1.18	1.28	1.61	1.25	3.02	2.53	1.70	2.21	1.34	1.36	.81	.74
26	1.20	1.21	1.46	1.38	2.83	2.42	1.95	2.31	1.70	1.29	.80	.74
27	1.21	1.19	1.39	1.48	2.74	2.35	2.12	2.05	1.68	1.19	.80	.77
28	1.21	1.13	1.41	1.55	2.21	2.58	2.06	1.96	1.41	1.16	.77	.74
29	1.21	1.15	1.21	2.13	-------	2.53	2.22	1.90	1.29	1.12	.75	.76
30	1.23	1.09	1.23	2.28	-------	2.32	2.59	1.85	1.31	1.11	.73	.76
31	1.20	-------	1.20	2.35	-------	2.22	-------	1.75	-------	1.22	.72	-------

Note.—Stage-discharge relation Jan. 29 to Feb. 10 affected by ice.

Daily discharge, in second-feet, of Raystown Branch Juniata River at Saxton, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,250	211	141	188	440	625	568	1,370	356	199	211	110
2	1,570	199	188	188	460	755	568	1,910	336	188	188	118
3	940	199	188	199	500	655	568	1,680	356	188	236	141
4	720	188	199	199	550	595	540	1,470	377	177	199	158
5	569	199	199	211	600	688	490	1,280	316	177	177	158
6	490	188	211	188	700	568	466	1,060	265	158	168	158
7	420	188	225	188	850	595	420	865	250	168	168	150
8	398	188	298	199	1,300	625	420	755	250	168	158	150
9	336	188	280	188	2,600	755	398	655	540	168	150	158
10	316	188	265	188	4,800	755	398	595	688	168	150	158
11	298	188	280	188	7,600	755	420	2,820	356	168	150	158
12	280	188	256	177	15,900	940	442	6,000	280	158	150	150
13	265	188	236	188	6,805	1,140	398	3,400	250	168	177	158
14	250	199	222	188	3,400	865	377	2,280	236	158	188	177
15	236	188	168	177	2,540	865	377	1,790	223	168	168	168
16	236	188	236	188	3,400	790	377	1,370	223	158	168	168
17	236	199	280	199	2,410	865	377	1,280	211	150	150	158
18	223	199	280	199	1,910	1,100	356	1,280	211	141	150	158
19	223	188	280	188	1,570	1,790	356	980	211	141	141	141
20	211	188	265	199	1,370	1,570	356	790	199	141	133	125
21	211	188	223	199	1,280	1,470	356	720	188	177	141	118
22	211	223	223	211	1,100	1,180	336	625	177	236	133	125
23	211	223	250	211	1,140	1,100	316	540	188	298	133	118
24	199	265	298	199	1,280	902	316	595	177	336	125	118
25	199	223	316	211	1,180	828	356	595	236	236	125	118
26	199	199	265	250	1,060	720	466	655	356	223	125	118
27	199	199	250	265	980	688	540	515	356	199	125	118
28	199	188	250	298	595	565	515	466	250	188	118	118
29	199	188	198	320		828	595	442	223	177	118	118
30	211	177	211	360	-------	655	865	420	223	177	118	118
31	199	-------	199	400	-------	595	-------	377	-------	199	110	-------

Note.—Discharge Jan. 29 to Feb. 10 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Frankstown Branch Juniata River at Williamsburg and Tuscarora Creek near Port Royal.

Monthly discharge of Raystown Branch Juniata River at Saxton, for the year ending September 30, 1925.

(Drainage area 790 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	3,250	199	442	0.560	0.65
November	265	177	197	.249	.28
December	316	141	238	.301	.35
January	400	177	218	.276	.32
February	15,600	440	2,440	3.09	3.22
March	1,790	568	875	1.11	1.24
April	865	316	444	.562	.63
May	6,000	377	1,280	1.62	1.87
June	688	177	284	.359	.40
July	336	141	186	.235	.27
August	256	110	153	.193	.22
September	177	110	140	.177	.20
The Year	15,900	110	563	.713	9.65

SUSQUEHANNA BASIN—STATION NO. 27

TUSCARORA CREEK NEAR PORT ROYAL

Location.—At single-span steel highway bridge about two miles southwest of Port Royal, Juniata County.

Drainage Area.—205 square miles.

Records Available.—August 21, 1911, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by Stuart Groninger.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are low but not subject to overflow, except during extremely high stages. Bed is composed of gravel and rocks. Control is at a riffle about 500 feet downstream from the gage; practically permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 9.2 feet at 4 a. m. February 12 (discharge, 4,820 second-feet); minimum, 1.73 feet at 6.40 a. m. August 28 (discharge, 3.4 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Regulation.—The operation of grist mills above the station may cause variation in stage during low flows.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 15 and 5,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for extreme stages when they are fair.

Daily Mean Gage Height, in feet, of Tuscarora Creek near Port Royal, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.30	2.35	2.33	2.06	3.12	3.45	3.16	3.70	2.73	2.39	2.48	2.04
2	3.88	2.34	2.26	2.32	3.14	3.96	3.16	3.58	2.68	2.30	2.54	1.91
3	3.38	2.36	2.22	2.40	3.47	3.29	3.12	3.37	2.64	2.26	2.38	1.96
4	3.12	2.33	2.30	2.33	3.74	3.42	3.01	3.23	2.72	2.18	2.30	1.92
5	2.94	2.36	2.38	2.54	3.88	3.43	2.92	3.20	2.61	2.98	2.26	1.92
6	2.86	2.32	2.42	2.39	3.89	3.24	2.84	3.10	2.52	2.66	2.46	1.92
7	2.76	2.32	2.55	2.37	3.98	3.45	2.80	2.98	2.50	2.39	2.46	1.81
8	2.70	2.30	2.55	2.38	4.28	3.39	2.80	2.92	2.47	2.53	2.33	1.90
9	2.64	2.28	2.52	2.44	4.80	3.45	2.76	2.84	2.52	2.38	2.30	1.96
10	2.61	2.32	2.45	2.46	6.03	3.44	2.78	2.81	2.46	2.34	2.32	1.97
11	2.55	2.30	2.40	2.32	7.38	3.37	2.80	4.75	2.39	2.30	2.25	1.93
12	2.55	2.25	2.35	2.56	8.35	4.00	2.76	6.17	2.36	2.22	2.20	1.94
13	2.52	2.26	2.43	2.52	5.63	3.70	2.74	4.72	2.33	2.26	2.22	1.98
14	2.49	2.37	2.27	2.50	4.64	3.61	2.68	4.18	2.33	2.18	2.21	2.10
15	2.51	2.36	2.25	2.44	4.73	3.50	2.76	3.86	2.36	2.14	2.25	2.27
16	2.44	2.36	2.42	2.54	4.90	3.30	2.77	3.61	2.42	3.04	2.24	2.19
17	2.40	2.34	2.34	2.48	4.36	3.32	2.68	3.80	2.33	2.92	2.25	2.22
18	2.44	2.22	2.42	2.47	3.98	3.87	2.66	3.55	2.32	2.50	2.22	2.12
19	2.42	2.34	2.44	2.56	3.74	3.66	2.70	3.30	2.26	2.32	2.20	2.14
20	2.42	2.26	2.37	2.62	3.70	3.60	2.91	3.20	2.24	2.32	2.11	1.95
21	2.38	2.30	2.46	2.70	3.58	3.49	2.78	3.08	2.21	2.32	2.13	2.04
22	2.36	2.67	2.43	2.72	3.62	3.34	2.70	2.99	2.26	2.98	2.10	2.02
23	2.38	2.89	2.29	2.74	3.93	3.26	2.66	2.94	2.20	3.18	2.09	1.96
24	2.34	2.57	2.16	2.92	4.04	3.18	2.66	3.32	2.18	2.64	2.11	1.98
25	2.36	2.43	2.24	2.78	3.71	3.13	2.66	3.72	2.42	2.47	2.12	1.95
26	2.36	2.40	2.16	2.89	4.05	3.69	2.85	3.20	2.50	2.35	2.04	1.96
27	2.36	2.32	2.12	2.86	3.70	3.08	2.85	2.99	2.38	2.37	1.83	1.92
28	2.36	2.36	2.04	2.93	3.41	3.66	2.76	2.87	2.28	2.34	1.76	1.81
29	2.34	2.28	2.16	2.98		3.52	2.78	2.81	2.55	2.28	1.92	1.84
30	2.42	2.14	2.14	2.98	-------	3.30	2.97	2.84	2.56	2.24	1.92	1.98
31	2.35	-------	2.13	3.03	-------	3.25	-------	2.80	-------	2.32	1.94	-------

Note.—Stage-discharge relation Jan. 2 to Feb. 11 affected by ice.

Daily discharge, in second-feet, of Tuscarora Creek near Port Royal, for the year ending September 30, 1925

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,140	44	41	18	75	242	170	315	92	48	59	17
2	385	42	34	20	85	405	170	285	81	38	66	10
3	230	45	30	28	100	205	160	218	79	34	47	13
4	160	41	38	20	120	230	140	192	90	27	38	11
5	128	45	47	28	140	242	121	180	74	136	34	11
6	113	40	51	20	140	192	110	160	63	81	56	11
7	97	40	67	20	180	242	102	136	61	48	56	6.0
8	87	38	67	20	280	230	102	124	57	65	41	9.6
9	79	36	63	26	500	242	97	110	63	47	38	13
10	74	40	55	26	1,300	242	100	105	56	42	40	13
11	67	38	49	20	2,800	218	102	835	48	38	33	11
12	67	33	44	26	3,880	425	97	1,790	45	30	29	12
13	63	34	53	22	1,340	315	93	780	41	34	30	14
14	60	46	35	20	725	285	81	510	41	27	30	21
15	62	45	33	20	780	255	97	368	45	24	33	35
16	54	45	51	26	890	205	98	285	51	150	32	28
17	49	42	42	26	588	205	84	350	41	124	33	30
18	54	30	51	26	425	368	81	270	40	61	30	22
19	51	42	54	26	332	300	87	205	34	40	29	24
20	51	34	46	38	315	285	122	180	32	40	22	12
21	47	38	56	38	285	230	100	160	30	40	23	17
22	45	83	53	38	285	218	87	138	34	136	21	16
23	47	118	37	44	405	192	81	128	29	180	20	13
24	42	69	35	55	445	180	81	205	27	79	22	14
25	45	53	32	50	315	170	81	315	51	57	22	12
26	45	49	25	50	445	160	112	180	61	44	17	13
27	45	40	22	55	315	160	112	138	47	46	6.7	11
28	45	45	17	60	230	300	97	115	36	42	4.3	6.0
29	42	36	25	65		255	100	105	67	36	11	7.1
30	51	24	24	75	-------	205	134	110	68	32	11	14
31	44	-------	23	75	-------	192	-------	103	-------	40	12	-------

Note.—Discharge Jan. 2 to Feb. 11 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Frankstown Branch Juniata River at Williamsburg and Raystown Branch Juniata River at Saxton.

Monthly discharge of Tuscarora Creek near Port Royal for the year ending September 30, 1925.

(Drainage area 205 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	1,140	42	115	0.561	0.65
November	118	24	45.2	.220	.25
December	67	17	41.6	.203	.23
January	75	18	34.9	.170	.20
February	3,880	75	633	3.09	3.22
March	425	160	245	1.20	1.38
April	170	81	107	.522	.58
May	1,790	103	293	1.43	1.65
June	92	27	52.9	.258	.29
July	180	24	60.2	.293	.34
August	66	4.3	30.5	.149	.17
September	35	6.0	14.9	.073	.08
The Year	3,880	4.3	136	.663	9.04

SUSQUEHANNA BASIN—STATION NO. 28

JUNIATA RIVER AT NEWPORT

Location.—At four-span steel highway bridge, Newport, Perry County.

Drainage Area.—3,380 square miles.

Records Available.—March 21, 1899, to July 14, 1906, and January 7, 1907, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by A. R. Bortel. Elevation of gage zero 363.32 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of hard material. Low-water control is at a riffle about 400 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, 16.00 feet observed at midnight February 12-13 (discharge, 50,500 second-feet); minimum, 2.78 feet at 8 a. m. September 27 (discharge, 328 second-feet); a stage of 2.71 feet, estimated because of backwater from growth of grass in channel, was reached at 8 a. m. August 27 (discharge, 260 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice and growth of grass in channel. Rating curve well defined from 400 to 70,000 second-feet. Gage read twice daily to hundredths below 3.30 feet and to half-tenths above; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

Discharge measurements of Juniata River at Newport, during the year ending September 30, 1925.

No.	Date	Made by	Gage Height	Discharge
			Feet	Sec.-ft.
81	Oct. 22	O. Lauterhahn and J. M. Snavely	3.55	1,550
82	22	do	3.49	1,440
83	30	J. M. Snavely	3.22	967
84	30	H. J. McIntyre	3.20	886
85	Sept. 5a	J. M. Snavely and O. Lauterhahn	3.13	608

a Measurement made by wading at gage. Gage height affected by growth of grass in channel.

Daily Mean Gage Height, in feet, of Juniata River at Newport, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.73	3.12	3.23	3.62	4.32	4.80	4.27	4.26	3.91	3.47	3.70	3.92
2	7.23	3.25	3.32	3.70	4.48	4.75	4.25	4.76	3.68	3.25	3.80	3.10
3	5.75	3.19	3.10	3.88	4.75	4.70	4.17	4.86	3.74	3.12	3.77	3.01
4	4.93	3.22	3.38	3.92	4.85	4.60	4.17	4.76	3.86	3.21	3.60	2.96
5	4.65	3.22	3.35	3.95	4.95	4.50	4.12	4.68	3.66	3.60	3.40	3.12
6	4.45	3.19	3.30	3.72	5.05	4.32	3.99	4.61	3.66	3.40	3.60	3.12
7	4.25	3.19	3.35	3.62	5.30	4.20	3.97	4.41	3.64	3.30	3.65	3.03
8	4.05	3.20	3.38	3.70	5.40	4.32	3.82	4.36	3.66	3.33	3.47	2.96
9	4.00	3.23	3.30	3.75	5.85	4.52	3.77	4.28	3.44	3.25	3.57	2.95
10	3.88	3.19	3.52	3.85	7.45	4.52	3.85	4.11	3.86	3.25	3.34	2.89
11	3.77	3.21	3.58	3.82	10.28	4.47	3.82	4.78	3.68	3.29	3.36	3.11
12	3.67	3.24	3.42	3.80	13.88	4.77	3.82	7.94	3.86	3.23	3.29	3.07
13	3.53	3.18	3.38	3.80	14.40	4.82	3.79	8.51	3.68	3.30	3.39	3.17
14	3.53	3.05	3.35	3.82	10.35	4.77	3.59	6.96	3.41	3.25	3.29	3.17
15	3.45	3.19	3.20	3.82	7.80	4.79	3.77	6.01	3.28	3.10	3.29	3.08
16	3.45	3.27	3.48	3.80	7.40	4.65	3.79	5.51	3.21	3.25	3.22	3.06
17	3.50	3.25	3.80	3.78	6.98	4.57	3.79	5.36	3.38	3.68	3.23	3.19
18	3.43	3.20	3.58	3.85	6.28	4.49	3.79	5.28	3.31	3.50	3.42	3.07
19	3.45	3.10	3.48	3.90	5.72	4.87	3.65	5.06	3.31	3.21	3.26	3.42
20	3.25	3.22	3.68	3.95	5.40	4.92	3.79	4.74	3.26	3.13	3.29	3.08
21	3.30	3.17	3.78	3.80	5.18	4.97	3.55	4.58	3.29	3.15	3.24	2.99
22	3.53	3.40	3.30	3.92	5.10	4.95	3.75	4.48	3.11	3.83	3.19	2.91
23	3.37	3.50	3.58	3.92	5.20	4.79	3.72	4.41	3.22	4.03	3.23	2.88
24	3.37	3.52	3.55	4.05	5.48	4.69	3.67	4.28	3.07	4.43	3.15	2.81
25	3.22	3.45	3.62	4.00	5.38	4.55	3.75	4.48	3.29	3.93	3.04	2.87
26	3.27	3.42	3.85	3.92	5.32	4.45	3.65	4.81	3.21	3.70	3.05	2.86
27	3.24	3.32	4.10	4.08	5.22	4.25	3.67	4.26	3.43	3.50	2.90	2.79
28	3.30	3.27	3.70	3.95	4.95	4.69	3.59	4.14	3.45	3.83	2.98	2.88
29	3.33	3.30	3.90	4.20		5.07	3.82	4.01	3.23	3.65	2.97	2.87
30	3.24	3.38	3.82	4.25	-------	4.49	3.97	4.06	3.24	3.67	2.92	2.90
31	3.26	-------	3.78	4.25	-------	4.49	-------	4.04	-------	3.55	2.92	-------

Note.—Stage-discharge relation Dec. 2, 4, 5, 16-18, Dec. 23 to Feb. 10 and Feb. 26 to Mar. 6 affected by ice and June 10 to Sept. 17 by growth of grass.

Daily discharge, in second-feet, of Juniata River at Newport, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	18,300	772	954	900	1,200	4,000	3,290	3,290	2,370	1,200	1,600	440
2	12,800	990	750	900	1,300	3,400	3,290	4,930	1,900	850	1,800	550
3	8,080	884	740	1,100	1,300	3,200	3,020	5,240	2,020	650	1,700	440
4	5,240	936	750	1,100	1,500	3,000	3,020	4,930	2,250	750	1,400	400
5	4,320	936	800	1,100	1,890	3,000	2,880	4,620	1,790	1,500	950	600
6	3,870	884	1,080	1,100	2,600	3,200	2,620	4,320	1,790	1,100	1,400	600
7	3,290	884	1,180	1,100	4,600	3,430	2,500	3,720	1,790	900	1,400	500
8	2,750	900	1,230	1,000	5,500	3,430	2,130	3,580	1,790	950	1,100	420
9	2,620	954	1,080	1,100	7,000	4,020	2,020	3,430	1,250	800	1,300	420
10	2,250	884	1,470	1,100	11,000	4,020	2,250	2,880	2,200	800	850	360
11	2,020	918	1,680	1,100	24,600	3,870	2,130	4,930	1,800	850	900	650
12	1,790	972	1,310	1,100	40,300	4,930	2,130	15,400	2,200	750	800	600
13	1,580	868	1,230	1,100	42,600	4,930	2,130	17,600	1,800	850	950	750
14	1,580	670	1,180	1,100	25,100	4,930	1,680	12,100	1,200	800	800	750
15	1,370	884	900	1,100	15,000	4,930	2,020	8,720	1,000	550	800	650
16	1,370	1,030	800	1,100	13,500	4,320	2,130	7,120	850	800	700	650
17	1,470	990	750	1,100	12,100	4,320	2,130	6,800	1,200	1,500	700	850
18	1,230	900	900	1,100	9,690	4,020	2,130	6,480	1,000	1,200	1,000	698
19	1,370	740	1,430	1,100	7,760	5,240	1,790	5,860	1,000	700	750	1,310
20	990	936	1,900	1,100	6,800	5,240	2,130	4,620	950	600	800	712
21	1,080	852	2,130	1,100	6,170	5,550	1,580	4,320	950	650	700	587
22	1,580	1,270	1,080	1,100	5,860	5,550	2,020	4,020	700	1,900	650	483
23	1,210	1,470	900	1,100	6,170	4,930	1,900	3,720	850	2,400	700	446
24	1,210	1,470	900	1,100	7,120	4,620	1,790	3,430	600	3,400	600	362
25	936	1,370	900	1,100	6,800	4,320	2,020	4,020	950	2,200	460	434
26	1,030	1,310	1,100	1,000	6,000	3,870	1,790	4,930	800	1,600	480	422
27	972	1,120	1,100	1,000	5,000	3,290	1,790	3,290	1,200	1,200	300	339
28	1,080	1,030	1,100	900	4,400	4,620	1,680	3,020	1,200	1,900	380	446
29	1,140	1,080	1,100	900	-------	5,860	2,130	2,620	850	1,500	380	434
30	972	1,230	1,000	1,000	-------	4,020	2,500	2,750	850	1,500	320	470
31	1,010	-------	1,000	1,200	-------	4,020	-------	2,750	-------	1,300	320	-------

Note.—Discharge Dec. 2, 4, 5, 16-18, Dec. 23 to Feb. 10 and Feb. 26 to Mar. 6 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for other stations in the drainage basin. Discharge June 10 to Sept. 17 estimated, because of backwater caused by growth of grass in the river channel, from discharge measurement, study of gage height graph and comparison with discharge at other stations in the drainage basin.

Monthly discharge of Juniata River at Newport, for the year ending September 30, 1925. (Drainage area 3,380 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	13,300	936	2,920	0.864	1.00
November	1,470	740	1,000	.296	.33
December	2,130	740	1,110	.328	.38
January	1,200	900	1,060	.314	.36
February	42,600	1,200	10,100	2.99	3.11
March	5,860	3,000	4,260	1.26	1.45
April	3,290	1,580	2,220	.657	.73
May	17,600	2,620	5,470	1.62	1.87
June	2,370	600	1,370	.405	.45
July	2,400	550	1,210	.358	.41
August	1,900	300	971	.258	.30
September	1,310	339	559	165	.18
The Year	42,600	300	2,630	.778	10.57

SUSQUEHANNA BASIN—STATION NO. 29

SUSQUEHANNA RIVER AT HARRISBURG

Location.—At fifteen-span steel highway bridge, Walnut Street, Harrisburg, Dauphin County.

Drainage Area.—24,100 square miles.

Records Available.—January 1, 1891, to September 30, 1925.

Gages.—Standard chain attached to upstream side of bridge; read by employes of the Department of Forests and Waters and United States Weather Bureau. Elevation of gage zero 289.4 feet, United States Geological Survey datum. Sanborn water-stage recorder located on top, downstream corner, of left abutment and referred to same datum as chain gage, was not maintaind after October 6, 1924.

Discharge Measurements.—Made from downstream side of bridge or by wading and from boat.

Channel and Control.—Banks are high and not subject to overflow. Bed is composed of gravel and boulders. A low dam 4,200 feet downstream from the gage, completed on August 29, 1916, is the control for all except high stages.

Extremes of Discharge.—Maximum stage during the year, 18.80 feet observed from 7.15 to 8.50 a. m. February 13 (discharge, 378,800 second-feet); minimum, 3.13 feet at 4.10 p. m. September 11 (discharge, 3,540 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 4,000 and 300,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying to rating table daily mean gage height, computed from a continuous hydrograph, obtained by plotting gage readings. Results good.

Discharge measurements of Susquehanna River at Harrisburg, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec. ft.
115	Oct. 21	J. M. Snavely & O. Lauterhahn	3.78	10,300
116	Sept. 3 & 4 a	O. Lauterhahn	3.18	4,070

a Measurement made from boat and by wading 1 mile downstream from gage.

Daily Mean Gage Height, in feet, of Susquehanna River at Harrisburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	13.36	3.52	4.88	4.70	4.20	6.80	5.98	4.62	4.64	3.52	4.12	3.22
2	12.78	3.50	4.25	4.67	4.16	6.34	5.88	4.70	4.50	3.64	4.08	3.23
3	10.95	3.48	4.43	4.60	4.28	5.73	5.83	4.78	4.36	3.69	3.99	3.19
4	8.86	3.47	4.63	4.70	4.46	5.53	5.73	5.02	4.36	3.90	3.88	3.18
5	7.13	3.47	4.70	4.83	4.51	5.37	5.59	5.15	4.32	4.12	3.79	3.18
6	6.06	3.46	4.45	4.93	4.54	5.12	5.40	5.08	4.24	3.94	3.70	3.17
7	5.50	3.44	3.85	4.93	4.66	5.10	5.24	5.08	4.10	3.96	3.68	3.18
8	5.13	3.42	3.72	4.85	4.76	5.12	5.04	5.35	4.00	3.94	3.68	3.16
9	4.87	3.41	3.80	4.70	4.88	5.12	4.88	5.22	3.98	3.88	3.71	3.14
10	4.65	3.41	3.78	4.85	5.22	5.22	4.79	5.08	3.88	3.93	3.90	3.15
11	4.50	3.40	3.90	4.75	8.44	5.35	4.64	5.05	3.85	3.91	4.08	3.14
12	4.38	3.40	4.20	4.65	17.30	5.53	4.54	5.86	3.88	3.78	4.10	3.17
13	4.28	3.40	4.20	4.55	18.30	5.62	4.51	6.35	3.78	3.71	3.98	3.20
14	4.18	3.38	4.12	4.40	15.55	5.62	4.48	6.21	3.68	3.83	3.88	3.30
15	4.10	3.38	4.28	4.45	11.79	5.58	4.46	5.96	3.66	3.88	3.87	3.50
16	4.03	3.39	4.18	4.30	9.76	5.50	4.43	5.64	3.63	3.78	3.93	3.53
17	3.98	3.39	4.12	4.30	8.63	5.90	4.38	5.35	3.62	3.83	3.88	3.68
18	3.91	3.38	4.12	4.22	7.64	6.07	4.37	5.32	3.62	3.76	3.86	4.34
19	3.89	3.40	3.98	4.27	6.98	5.93	4.40	5.30	3.58	3.66	3.88	4.32
20	3.84	3.43	4.12	4.37	6.39	5.90	4.38	5.12	3.50	3.60	3.76	4.20
21	3.79	3.40	4.65	4.28	6.04	6.30	4.40	4.98	3.45	3.54	3.71	4.02
22	3.71	3.44	4.95	4.18	5.88	6.52	4.49	4.87	3.44	3.62	3.63	3.85
23	3.70	3.58	4.95	4.28	5.94	6.15	5.30	4.72	3.42	3.99	3.56	3.78
24	3.68	3.75	4.65	4.48	6.54	5.85	5.12	4.61	3.44	4.22	3.50	3.74
25	3.64	3.84	4.45	4.40	8.10	5.55	4.87	4.83	3.48	4.26	3.48	3.72
26	3.61	3.82	4.35	4.38	8.58	5.30	4.74	5.20	3.46	4.40	3.41	3.71
27	3.61	4.25	4.50	4.28	8.15	5.15	4.58	5.44	3.38	4.34	3.40	3.61
28	3.60	4.15	4.55	4.26	7.50	5.15	4.57	5.30	3.55	4.17	3.36	3.52
29	3.59	3.95	4.70	4.28	-------	5.42	4.76	5.13	3.59	4.04	3.33	3.46
30	3.56	3.82	4.35	4.21	-------	5.75	4.73	4.96	3.58	4.00	3.30	3.42
31	3.54	-------	4.55	4.28	-------	6.10	-------	4.82	-------	4.06	3.26	-------

Note.—Stage-discharge relation Nov. 19-21, Dec. 1-7, Dec. 15 to Feb. 10 and Feb. 28 to Mar. 5 affected by ice.

Daily discharge, in second-feet, of Susquehanna River at Harrisburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	218,800	7,200	9,500	6,500	3,500	60,000	49,300	22,500	22,500	7,200	15,000	4,280
2	202,800	7,200	9,000	6,000	6,500	50,000	47,200	24,100	20,900	9,000	15,000	4,370
3	159,000	6,960	8,500	6,000	8,000	42,000	45,100	25,800	18,600	9,600	13,600	4,020
4	112,800	6,840	9,000	7,000	9,000	36,000	43,000	29,300	18,600	12,200	12,200	3,940
5	73,200	6,840	9,000	9,000	9,000	34,000	40,900	33,000	17,900	15,000	10,900	3,940
6	51,400	6,720	9,500	9,500	9,500	31,100	36,900	31,100	17,200	12,900	9,600	3,860
7	38,900	6,480	9,500	10,000	10,000	31,100	33,000	31,100	15,000	12,900	9,600	3,940
8	31,100	6,240	9,600	10,000	12,000	31,100	29,300	36,900	13,600	12,900	9,600	3,780
9	27,500	6,120	10,900	9,500	16,000	31,100	27,500	33,000	13,600	12,200	9,600	3,620
10	22,500	6,120	10,900	10,000	26,000	33,000	25,800	31,100	12,200	12,900	12,200	3,700
11	20,900	6,000	12,200	9,500	101,800	36,900	22,500	29,300	11,600	12,200	15,000	3,620
12	19,400	6,000	16,400	9,000	332,500	38,900	20,900	47,200	12,200	10,900	15,000	3,860
13	17,900	6,000	16,400	8,500	363,300	40,900	20,900	57,800	10,900	9,600	13,600	4,100
14	16,400	5,800	15,000	8,500	281,500	40,900	20,900	53,500	9,600	11,600	12,200	5,000
15	15,000	5,800	14,000	8,000	177,700	40,900	20,200	49,300	9,000	12,200	11,600	7,200
16	14,300	5,900	14,000	7,000	132,600	38,900	20,200	40,900	9,000	10,900	12,900	7,800
17	13,600	5,900	14,000	7,000	106,200	47,200	19,400	36,900	8,400	11,600	12,200	9,600
18	12,200	5,800	13,000	6,500	84,200	51,400	18,600	34,900	8,400	10,200	11,600	18,600
19	12,200	5,500	13,000	7,000	71,000	47,200	19,400	34,900	8,400	9,000	12,200	17,900
20	11,600	5,500	13,600	8,000	57,800	47,200	19,400	31,100	7,200	8,400	10,200	16,400
21	10,900	6,000	13,000	7,000	49,300	55,600	19,400	29,300	6,600	7,800	9,600	13,600
22	9,600	6,480	22,000	6,500	47,200	60,000	20,900	27,500	6,480	8,400	9,000	11,000
23	9,600	8,400	22,000	7,000	47,200	53,500	34,900	24,100	6,240	13,600	7,800	10,900
24	9,600	10,200	18,000	7,000	60,000	45,100	31,100	22,500	6,480	16,400	7,200	10,200
25	9,000	11,600	13,000	7,000	95,200	40,900	27,500	25,800	6,960	17,200	6,960	9,600
26	8,400	10,900	9,600	7,000	106,200	34,900	24,100	33,000	6,720	19,400	6,120	9,600
27	8,400	17,200	8,000	7,000	97,400	33,000	22,500	36,900	5,800	18,600	6,000	8,400
28	8,400	15,700	8,000	7,000	80,000	33,000	22,500	34,900	7,800	15,700	5,600	7,200
29	8,400	12,900	9,000	6,500	-------	36,900	25,800	31,100	8,400	14,300	5,300	6,720
30	7,800	10,900	8,000	6,500	-------	45,100	24,100	29,300	8,400	13,600	5,000	6,240
31	7,800	-------	7,000	6,500	-------	51,400	-------	25,800	-------	14,300	4,640	-------

Note.—Discharge Nov. 19-21, Dec. 1-7, Dec. 15 to Feb. 10 and Feb. 28 to Mar. 5 estimated, because of ice, from weather records, study of gage height graph and comparison with discharge of Susquehanna River at Holtwood.

Monthly discharge of Susquehanna River at Harrisburg, for the year ending September 30, 1925.

(Drainage area 24,100 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	218,800	7,800	38,400	1.59	1.83
November	17,200	5,500	7,840	.325	.36
December	22,000	7,000	12,200	.506	.58
January	10,000	6,000	7,660	.318	.37
February	363,300	6,500	85,800	3.56	3.71
March	60,000	31,100	41,900	1.74	2.01
April	49,300	18,600	27,800	1.15	1.28
May	57,800	22,500	33,400	1.39	1.60
June	22,500	5,800	11,200	.465	.52
July	19,400	7,200	12,300	.510	.59
August	15,000	4,640	10,200	.423	.49
September	18,600	3,620	7,590	.315	.35
The Year	363,300	3,620	24,300	1.01	13.69

SUSQUEHANNA BASIN—STATION NO. 30

LITTLE SWATARA CREEK NEAR PINE GROVE

Location.—At single-span steel highway bridge, about three-quarters of a mile upstream from mouth of creek and one mile southeast of Pine Grove, Schuylkill County.

Drainage Area.—34 square miles.

Records Available.—November 18, 1919, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by Miss Lottie Mars.

Discharge Measurements.—Made from upstream side of bridge or by wading.

Channel and Control.—Both banks are of medium height; overflow begins on the right side of the bridge at a stage of 6.7 feet and on the left side at 6.5 feet. The bed is composed of coarse gravel at the gage and control section. The stream is divided by an island 60 feet long, about 200 feet downstream from the gage. Control for the right channel is at the upstream end of the island, and for the left channel at the downstream end. The left channel control was materially changed by a deposit of gravel during the high flow of September 30, 1924.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 7.2 feet at 6 p. m February 11 (discharge, about 1,310 second-feet); minimum, 1.20 feet at 7.30 a.m. November 21 and from 6 p. m. September 29 to 6 a. m. September 30 (discharge, 7.5 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation probably permanent except when affected by ice. A new rating table considered applicable since September 30, 1924, was used. Rating curve well defined below 100 second-feet and fairly well defined between 100 and 500 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for high stages when they are fair.

Discharge measurements of Little Swatara Creek near Pine Grove, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec. ft.
25	Apr. 17	H. J. McIntyre	1.75	36.1
26	17	do	1.79	36.5
27	May 28a	do	1.83	38.4
28	28a	do	1.83	40.1

a Measurement by wading 50 feet upstream from gage

Daily Mean Gage Height, in feet, of Little Swatara Creek near Pine Grove, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.05	1.42	1.44	1.80	2.70	2.36	1.92	2.10	1.68	1.82	2.65	1.32
2	2.82	1.44	1.46	1.86	2.81	2.30	1.96	2.04	1.64	1.72	2.36	1.28
3	2.45	1.36	1.40	2.05	2.97	2.27	1.87	1.97	1.60	1.64	2.12	1.28
4	2.24	1.40	1.44	2.26	2.86	2.26	1.86	1.93	1.55	1.61	2.02	1.29
5	2.12	1.38	1.53	2.22	2.78	2.08	1.79	1.90	1.52	1.97	2.00	1.26
6	2.01	1.37	2.00	2.19	2.82	2.08	1.76	1.83	1.50	1.71	1.94	1.24
7	1.94	1.30	1.74	2.19	2.93	2.03	1.74	1.80	1.45	1.90	1.86	1.41
8	1.86	1.38	1.65	2.17	3.01	2.06	1.74	1.76	1.46	1.77	1.80	1.26
9	1.81	1.30	1.80	2.13	3.20	2.04	1.72	1.73	1.50	1.91	1.93	1.29
10	1.80	1.38	1.80	2.17	4.98	2.00	1.73	1.71	1.56	2.12	1.84	1.26
11	1.76	1.36	1.67	2.20	6.79	1.99	1.74	2.42	1.40	2.10	1.74	1.27
12	1.70	1.30	1.65	2.19	5.78	2.08	1.70	2.31	1.40	1.95	1.66	1.25
13	1.70	1.29	1.70	2.20	3.76	1.96	1.64	2.18	1.38	1.84	1.67	1.32
14	1.63	1.36	1.62	2.17	3.08	2.03	1.65	2.08	1.38	1.72	1.64	1.56
15	1.64	1.32	2.02	2.14	3.12	1.98	1.84	2.02	1.38	1.72	1.64	1.35
16	1.61	1.35	1.78	2.22	2.94	1.94	1.76	1.94	1.40	2.13	1.54	1.63
17	1.56	1.34	1.63	2.37	2.87	2.00	1.70	1.98	1.34	2.43	1.53	1.35
18	1.54	1.26	1.54	2.42	2.72	2.04	1.72	1.86	1.32	2.12	1.50	1.30
19	1.54	1.26	1.56	2.33	2.58	2.12	1.80	1.82	1.32	1.97	1.44	1.28
20	1.52	1.30	1.50	2.34	2.55	2.03	1.76	1.79	1.28	1.88	1.75	1.24
21	1.49	1.36	1.60	2.36	2.57	2.04	1.68	1.76	1.27	1.93	1.68	1.26
22	1.54	2.03	1.50	2.31	2.78	2.03	1.70	1.72	1.22	2.38	1.60	1.23
23	1.52	1.62	1.54	2.33	3.13	1.98	1.66	1.69	1.22	2.20	1.44	1.22
24	1.42	1.50	1.72	2.25	3.03	1.93	1.63	1.95	1.28	2.06	1.41	1.24
25	1.52	1.44	1.66	2.38	2.84	1.90	1.66	1.97	1.65	2.05	1.38	1.27
26	1.44	1.42	1.60	2.40	2.84	1.87	1.78	1.92	1.33	2.30	1.38	1.24
27	1.48	1.38	1.61	2.54	2.50	1.86	1.68	1.88	1.35	2.04	1.34	1.20
28	1.45	1.52	1.72	2.48	2.55	2.08	1.64	1.83	1.52	1.94	1.33	1.26
29	1.42	1.32	1.72	2.50	-------	1.99	1.70	1.81	1.68	1.92	1.38	1.21
30	1.42	1.50	1.75	2.58	-------	1.93	1.84	1.80	2.14	1.82	1.30	1.20
31	1.42	-------	1.80	2.74	-------	1.94	-------	1.74	-------	2.48	1.34	-------

Note.—Stage-discharge relation Nov. 16, 17, 28, Nov. 30 to Dec. 2, Dec. 13, 15-17, 21, Dec. 23 to Feb. 10 and Feb. 28 to Mar. 4 affected by ice.

Daily discharge, in second-feet of Little Swatara Creek near Pine Grove, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	525	14	11	20	18	95	48	71	27	38	188	11
2	225	15	12	20	20	85	53	63	24	30	118	9.7
3	136	12	13	20	20	75	43	54	22	24	74	9.7
4	94	13	15	22	20	70	42	50	20	26	61	10
5	74	12	18	22	22	68	35	46	18	54	58	9.2
6	59	12	58	22	22	68	33	39	17	29	51	8.6
7	51	10	31	22	22	62	31	36	15	46	42	13
8	42	12	25	22	28	66	31	33	15	34	36	9.2
9	37	10	36	20	36	63	30	30	17	47	50	10
10	36	12	36	20	425	58	30	29	20	74	40	9.2
11	33	12	26	20	1,210	57	31	132	13	71	31	9.5
12	28	10	25	20	975	68	28	107	13	52	26	8.9
13	28	10	22	20	475	53	24	83	12	40	26	11
14	24	12	23	20	300	62	25	68	12	30	24	20
15	24	11	22	20	300	56	40	61	12	30	24	12
16	23	10	20	20	262	51	33	51	13	76	19	24
17	20	10	20	20	238	58	28	56	11	134	18	12
18	19	9.2	19	20	200	63	30	42	11	74	17	10
19	19	9.2	20	20	175	74	36	38	11	54	15	9.7
20	18	10	17	20	162	62	33	35	9.7	44	32	8.6
21	17	12	18	20	162	63	27	33	9.5	50	27	9.2
22	19	62	17	20	225	62	28	30	8.1	122	22	8.3
23	18	23	18	18	300	56	26	27	8.1	86	15	8.1
24	14	17	18	18	275	50	27	52	9.7	66	13	8.6
25	18	15	18	18	238	46	26	54	25	64	12	9.5
26	15	14	18	18	238	43	34	48	11	105	12	8.6
27	16	12	18	16	150	42	27	44	12	63	11	7.5
28	15	13	18	16	120	68	24	39	18	51	11	9.2
29	14	11	20	16	-------	57	28	37	27	48	12	7.8
30	14	10	20	18	-------	50	40	36	77	38	10	7.5
31	14	-------	20	18	-------	51	-------	31	-------	145	11	-------

Note.—Discharge Nov. 16, 17, 28, Nov. 30 to Dec. 2, Dec. 13, 15-17, Dec. 23 to Feb. 10 and Feb. 28 to Mar. 4 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Swatara Creek at Harpers.

Monthly discharge of Little Swatara Creek near Pine Grove, for the year ending September 30, 1925.

(Drainage area 34 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	525	14	54.5	1.60	1.84
November,	62	9.2	13.8	.406	.45
December,	58	11	21.7	.638	.74
January,	22	16	19.5	.574	.66
February,	1,210	18	237	6.97	7.26
March,	95	42	61.4	1.81	2.09
April,	53	24	32.4	953	1.06
May,	132	27	50.2	1.48	1.71
June,	77	8.1	17.3	.509	.57
July,	145	23	59.4	1.75	2.02
August,	188	10	35.7	1.05	1.21
September,	24	7.5	10.3	.303	.34
The Year,	1,210	7.5	49.9	1.47	19.95

SWATARA CREEK AT HARPERS

Location.—At two-span steel highway bridge, Harpers, Lebanon County about five miles northwest of Annville.

Drainage Area.—334 square miles.

Records Available.—December 17, 1918, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Elmer G. Shuey.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—At low and medium stages, the stream flows under the left span of the bridge. There is a flood plane under the right span which is covered by water during high stages. Outside of the flood plane both banks are of medium height but not subject to overflow. Bed is composed of culm and gravel. Control is at a riffle about 300 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 14.4 feet at noon February 12 (discharge, about 13,200 second-feet); minimum, 0.40 foot at 5.40 p. m. September 25 (discharge, 52 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined from 50 to 1,500 second-feet and fairly well defined between 1,500 and 6,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

The following discharge measurement was made by J. M. Snavely: No. 27, April 9: Gage height, 1.28 feet; discharge, 310 second-feet.

Daily Mean Gage Height, in feet, of Swatara Creek at Harpers, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10.59	0.72	0.93	1.00	1.82	2.87	1.87	2.21	1.32	2.00	4.24	0.51
2	5.47	.69	.92	1.30	1.94	2.95	1.96	1.98	1.22	1.45	2.70	.52
3	4.04	.70	1.08	1.24	2.14	2.37	1.87	1.80	1.16	1.38	2.23	.50
4	3.32	.68	.90	1.41	2.23	2.48	1.71	1.72	1.08	1.22	1.96	.51
5	2.86	.68	.82	1.48	2.18	2.20	1.57	1.62	.98	2.49	1.86	.46
6	2.44	.69	1.79	1.29	2.18	2.20	1.51	1.54	.94	1.78	1.82	.45
7	2.22	.68	1.61	1.29	2.32	2.30	1.42	1.45	.82	1.47	1.64	.49
8	2.09	.67	1.39	1.29	2.48	2.34	1.39	1.35	.85	1.43	1.42	.52
9	1.86	.64	1.78	1.26	2.78	2.32	1.32	1.30	1.10	1.77	2.20	.49
10	1.70	.64	1.48	1.22	5.41	2.09	1.36	1.31	1.25	1.58	2.11	.46
11	1.57	.64	1.32	1.17	10.78	2.01	1.40	2.30	.98	2.28	1.61	.44
12	1.44	.66	1.26	1.24	13.46	2.49	1.29	3.32	.74	1.58	1.37	.43
13	1.35	.64	1.29	1.22	8.77	2.01	1.22	2.52	.74	1.73	1.38	.56
14	1.30	.68	1.32	1.26	5.97	1.93	1.17	2.26	.68	1.20	1.38	1.16
15	1.24	.70	1.72	1.26	5.56	1.79	1.49	2.16	.70	1.12	1.18	.91
16	1.19	.54	2.00	1.20	5.95	1.68	1.48	1.96	.84	2.84	1.04	1.13
17	1.14	.54	1.33	1.34	5.18	1.91	1.36	1.90	.76	5.55	.92	.97
18	1.11	.54	1.14	1.56	4.58	2.11	1.24	1.83	.67	2.65	.92	.64
19	1.04	.83	1.06	1.59	4.20	2.27	1.30	1.66	.59	2.10	.82	.58
20	.97	.72	1.00	1.52	4.12	2.12	1.52	1.52	.56	1.78	.82	.54
21	.94	.57	.92	1.49	4.10	1.91	1.24	1.44	.55	1.73	1.10	.54
22	.91	1.78	1.32	1.59	4.39	1.87	1.20	1.36	.50	2.98	1.20	.48
23	.89	2.24	1.24	1.56	5.36	1.82	1.18	1.37	.50	3.10	.86	.44
24	.87	1.38	1.21	1.42	5.41	1.69	1.27	1.75	.50	2.18	.76	.44
25	.87	1.08	1.33	1.43	4.70	1.65	1.24	2.92	1.12	2.28	.68	.43
26	.82	.88	1.39	1.51	4.75	1.61	1.35	2.10	1.25	3.35	.66	.42
27	.80	.78	1.35	1.52	3.80	1.80	1.26	1.79	.75	2.78	.62	.42
28	.80	.76	1.41	1.56	3.12	2.76	1.19	1.64	1.57	2.20	.58	.42
29	.80	.76	1.38	1.69	-------	2.24	1.28	1.60	3.87	1.88	.56	.42
30	.74	.56	1.13	1.71	-------	1.99	1.44	1.62	3.54	1.64	.54	.42
31	.70	-------	1.11	1.80	-------	1.93	-------	1.44	-------	2.42	.51	-------

Note.—Stage-discharge relation Nov. 17-20, 28, 29, Dec. 1-4, 13-18, 22-31, Jan. 2 to Feb. 11, Mar. 2 and 4 affected by ice.

Daily discharge, in second-feet, of Swatara Creek at Harpers, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,130	127	85	198	170	967	488	630	288	547	1,810	84
2	2,850	120	100	200	200	750	527	547	256	340	861	80
3	1,670	122	100	220	200	717	488	468	241	322	630	75
4	1,260	117	120	220	220	650	430	430	226	256	527	77
5	967	117	151	220	220	630	375	393	193	763	488	66
6	717	120	468	220	220	630	357	375	182	468	468	64
7	630	117	393	220	220	673	322	340	151	340	412	73
8	588	115	322	220	260	673	322	305	162	340	322	80
9	488	108	468	220	320	673	288	288	226	449	630	73
10	430	108	357	260	460	588	305	288	272	393	588	66
11	375	108	288	200	4,200	547	322	673	193	673	393	61
12	340	112	272	180	11,800	763	288	1,260	132	393	305	59
13	305	108	260	180	6,030	547	256	763	132	449	322	89
14	288	117	260	180	3,300	527	241	673	117	256	322	241
15	272	122	240	180	2,940	468	357	650	122	226	256	175
16	256	81	240	180	3,300	430	357	527	156	913	212	241
17	241	75	220	260	2,610	507	272	507	136	2,940	177	190
18	226	75	220	200	2,130	588	272	488	115	811	177	108
19	212	75	212	200	1,810	673	288	412	96	588	151	93
20	190	75	198	200	1,740	588	357	357	89	468	151	84
21	182	91	177	200	1,740	507	272	340	86	449	226	84
22	175	468	180	180	1,970	488	256	305	75	1,020	256	70
23	169	630	180	180	2,770	468	256	305	75	1,080	162	61
24	164	322	180	170	2,770	430	272	449	75	630	136	61
25	164	226	200	170	2,210	412	272	967	226	673	117	59
26	151	167	200	170	2,290	393	305	588	272	1,260	112	57
27	146	141	200	160	1,530	468	272	468	134	913	103	57
28	146	110	200	160	1,080	913	256	412	375	630	93	57
29	146	100	200	160	-------	630	288	393	1,600	507	89	57
30	132	89	200	160	-------	547	340	393	1,320	412	84	57
31	122	-------	200	170	-------	527	-------	340	-------	717	77	-------

Note.—Discharge Nov. 17-20, 28, 29, Dec. 1-4, 13-18, 22-31, Jan. 2 to Feb. 11, Mar. 2 and 4, estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Little Swatara Creek near Pine Grove and Schuylkill River at Reading.

Monthly discharge of Swatara Creek at Harpers, for the year ending September 30, 1925.

(Drainage area 334 square miles)

	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	8,130	122	712	2.13	2.46
November	630	75	149	.446	.50
December	408	85	229	.686	.79
January	220	160	191	.572	.66
February	11,800	170	2.100	6.29	6.55
March	967	393	593	1.78	2.05
April	527	241	323	.967	1.08
May	1,200	288	492	1.47	1.70
June	1,600	75	257	.769	.86
July	2,940	226	652	1.95	2.25
August	1,810	77	344	1.03	1.19
September	241	57	90.0	.269	.30
The Year	11,800	57	501	1.50	20.39

SUSQUEHANNA BASIN—STATION NO. 32

SOUTH BRANCH CODORUS CREEK

Location.—At York Water Company Pumping Station near York, York County, about one-half mile upstream from the confluence of the South and West Branches, Codorus Creek.

Drainage Area.—114 square miles.

Records Available.—May 21 to September 30, 1925.

Gage.—Staff gage fastened to a braced support at right bank, about 45 feet upstream from the crest of dam; read to hundredths once daily by employees of the York Water Company.

Discharge Measurements.—Made by wading downstream from dam.

Channel and Control.—Banks are low and subject to overflow at high stages. Control is the York Water Company dam; permanent.

Extremes of Stage.—Maximum gage height during the period May 21 to September 30, estimated from hydrograph, 0.94 foot at 7 p. m. July 27; minimum, estimated from hydrograph, 0.0 foot at midnight September 26-27.

Accuracy.—Daily mean gage heights were computed from a continuous daily hydrograph obtained by plotting staff gage readings.

Cooperation.—Record furnished by York Water Company, York, Pa.

Discharge measurements of South Branch Codorus Creek near York, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
1	May 21a	J. M. Snavely	0.34	39.9
2	21a	do	.34	37.3
3	June 11a	do	.24	17.1
4	11a	do	.22	15.9
5	July 16a	do	.96	166
6	16a	do	.94	167

a Measurement made by wading about 200 feet below gage.

Daily Mean Gage Height, in feet, of South Branch Codorus Creek near York, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1									0.38	0.24	0.51	0.24
2									.36	.20	.36	.16
3									.40	.28	.36	.18
4									.35	.22	.42	.04
5									.32	.30	.36	.05
6									.26	.26	.36	.04
7									.30	.31	.42	.22
8									.34	.40	.31	.23
9									.45	.30	.39	.25
10									.48	.32	.37	.25
11									.34	.30	.30	.17
12									.31	.15	.30	.16
13									.29	.23	.41	.34
14									.30	.21	.34	.46
15									.38	.22	.26	.32
16									.40	.61	.22	.30
17									.29	.67	.28	.22
18									.32	.45	.24	.22
19									.31	.32	.28	.18
20									.22	.28	.23	.18
21									0.34	.31	.41	.40	.17
22									.30	.25	.53	.52	.16
23									.40	.24	.40	.25	.04
24									.50	.23	.38	.24	.06
25									.62	.33	.57	.22	.17
26									.58	.51	.49	.24	.05
27									10	.22	.73	.32	.04
28									.32	.41	.49	.32	.06
29									.28	.68	.34	.20	.18
30									.39	.41	.28	.04	.20
31									.44		.45	.17	

Note.—Station established May 21, 1925.

OHIO BASIN

OHIO BASIN—STATION NO. 1

ALLEGHENY RIVER NEAR LARABEE

Location.— At single-span steel highway bridge on road to Corryville, about one mile south of Pennsylvania Railroad station at Larabee, McKean County.

Drainage Area.—545 square miles.

Records Available.—June 29, 1915, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read to hundredths twice daily by Mrs. Pearl Austin and Mrs. Nettie Swartz.

Discharge Measurements.—Made from upstream side of bridge or by wading; during extremely high stages from railroad bridge about 200 feet downstream from gage.

Channel and Control.—The right bank is high and not subject to overflow. At a gage height of about 4 feet the river begins to overflow the left bank upstream from the bridge into a broad flat, where a part of the stream flow remains in storage until the river recedes. Bed is composed of gravel, stones and boulders. Low-water control is the upper sill of an old timber dam about 60 feet downstream from the gage. The timber abutments are vertical and have the effect of a weir at low stages.

Extremes of Stage.—Maximum gage height during the year, estimated from hydrograph, 15.4 feet at 10 p. m. February 12; minimum, 0.75 foot on June 22 and from 7.30 a. m. September 4 to 5.30 p. m. September 5.

Ice.—Stage-discharge relation usually affected by ice.

Cooperation.—Station is maintained in cooperation with United States Engineer Office, Pitsburgh, Pa.

The following discharge measurement was made by H. J. McIntyre: No. 23, July 25: Gage height, 0.96 foot; discharge, 96.2 second-feet.

Daily Mean Gage Height, in feet, of Allegheny River near Larabee, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	12.42	1.06	0.93	4.40	2.33	7.27	5.42	4.94	1.96	2.17	2.35	0.80
2	11.10	1.01	.93	3.15	2.49	6.48	5.35	5.06	1.81	1.89	2.03	.77
3	8.70	.97	.95	3.45	2.79	5.80	5.15	4.71	1.71	1.35	1.77	.77
4	5.75	.98	.97	3.75	3.12	6.03	4.71	4.68	1.56	1.25	1.59	.75
5	4.50	.98	.96	3.60	2.91	5.57	4.32	6.29	1.46	1.37	1.65	.75
6	4.00	.89	.92	3.40	2.81	4.57	4.07	6.31	1.41	1.25	1.22	.82
7	3.50	.96	1.18	3.30	3.14	4.47	3.86	6.31	1.32	1.18	1.25	.83
8		.97	1.63	3.20	4.17	4.77	3.66	6.26	1.45	1.25	1.14	.82
9	2.79	.98	2.99	3.00	7.15	4.67	3.41	5.46	2.35	1.20	1.15	.80
10	2.48	.94	2.84	2.90	10.62	5.27	3.36	4.91	1.46	1.05	1.31	.79
11	2.20	.88	2.69	2.80	12.51	5.77	3.84	5.96	1.32	.97	1.23	.79
12	2.02	.95	2.41	2.70	14.59	6.12	3.41	6.31	1.23	.89	.97	.82
13	1.80	.92	2.51	2.54	14.67	5.15	3.11	5.76	1.08	.86	1.33	.95
14	1.77	.93	2.92	2.52	13.11	5.95	2.91	5.51	1.07	.83	4.31	1.05
15	1.59	.96	2.94	2.40	11.49	6.50	3.28	5.11	1.06	.83	2.77	1.05
16	1.48	1.00	3.45	2.32	10.02	5.82	3.02	5.11	1.16	1.19	2.01	1.04
17	1.37	.97	6.52	2.40	7.82	5.67	2.76	5.26	1.06	1.55	1.56	1.02
18	1.18	.90	8.03	2.62	5.87	5.57	2.57	5.11	.96	1.35	1.41	1.28
19	1.22	.93	9.23	2.38	5.35	6.07	3.53	4.88	.81	.95	1.24	1.65
20	1.25	.92	9.43	2.33	4.97	7.78	6.84	4.51	84	.90	1.20	1.65
21	1.22	.92	7.66	2.35	4.62	7.73	5.78	4.14	.92	.85	1.45	1.56
22	1.11	.92	6.70	2.36	5.70	6.93	4.94	3.78	.75	1.35	1.03	1.55
23	1.18	.98	6.31	2.28	8.10	5.92	4.58	3.46	.85	1.25	1.02	1.22
24	1.07	.98	6.11	2.15	10.29	5.42	4.36	3.51	.85	1.05	.95	1.01
25	1.11	.96	5.20	2.16	10.32	5.12	3.71	3.76	1.45	.98	.91	.95
26	1.09	.92	5.45	2.20	10.12	4.69	4.71	3.31	1.35	1.41	.89	.85
27	1.07	.94	5.50	2.35	9.41	4.85	4.26	2.90	2.02	3.30	.85	.90
28	1.06	93	5.10	2.31	7.72	6.95	4.14	2.41	2.50	2.75	.85	.95
29	1.06	92	5.15	2.17		6.12	3.96	2.64	2.73	3.42	.83	.95
30	.99	.92	5.15	2.14	-------	5.95	3.98	2.60	2.43	2.76	.81	.87
31	.94	----	5.05	2.26	-------	5.79	-------	2.20	-------	2.26	.80	-------

Note.—Gage height Oct. 8 unsatisfactory. Stage-discharge relation Nov. 18-22, Nov. 27 to Dec. 6, Dec. 13-17 and Dec. 22 to Feb. 11 affected by ice.

OHIO BASIN—STATION NO. 2

BROKENSTRAW CREEK AT YOUNGSVILLE

Location.—At single-span steel highway bridge, Youngsville, Warren County.

Drainage Area.—290 square miles.

Records Available.—October 22, 1909, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by William L. York. Elevation of gage zero 1,188.92 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Banks are high and not subject to overflow. Bed is composed of silt, clay and gravel. Control is at the first of a series of riffles, extending from 300 to 500 feet downstream from the gage; may shift occasionally.

Extremes of Discharge.—Maximum stage during the year, 7.8 feet observed at 11 p. m. February 9 (discharge, about 7,010 second-feet); minimum, —0.42 foot at 5 p.m. September 11 (discharge 28 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected No. 45, July 31: Gage height, —0.23 foot; discharge, 56.4 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

The following discharge measurement was made by R. J. Ferris: No. 45, July 31: Gage height,—0.23 foot; discharge, 56.4 second-feet.

Daily Mean Gage Height, in feet, of Brokenstraw Creek at Youngsville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.80	0.07	—0.02	0.63	0.43	1.43	1.35	1.56	0.34	—0.04	—0.22	—0.39
2	4.39	.01	.11	.61	.39	1.40	1.36	1.88	.26	—.07	—.24	—.40
3	2.89	—.03	.07	.59	.47	1.31	1.43	1.82	.20	—.12	—.26	—.40
4	1.57	—.03	.06	.51	.43	1.23	1.18	1.43	.15	—.14	—.30	—.40
5	1.09	—.01	.08	.46	.41	1.10	1.00	1.26	.06	—.15	—.30	—.40
6	.90	—.04	.70	.46	.40	1.25	.86	1.09	.03	—.21	.18	—.39
7	.77	—.06	1.24	.48	.53	1.78	.82	1.08	.03	—.06	—.12	
8	.74	.00	1.97	.44	1.63	2.65	.73	.97	—.02	.41	—.22	
9	.62	—.02	2.49	.38	5.47	3.08	.71	.84	.00	.02	—.20	
10	.54	—.04	2.12	.39	7.28	2.50	.69	.79	—.04	—.11	—.16	
11	.50	—.03	1.23	.42	5.96	2.58	.70	1.62	—.09	—.11	—.20	—.41
12	.44	—.04	.96	.34	4.43	3.05	.66	1.48	—.14	—.14	—.28	—.33
13	.37	—.05	.60	.36	3.05	2.23	.57	1.13	—.14	—.25	.39	—.15
14	.28	—.05	.40	.32	2.13	2.30	.58	.95	—.15	—.27	1.06	.71
15	.25	—.01	.91	.32	1.98	3.15	1.19	.84	—.14	—.26	.46	.44
16	.24	.01	1.23	.38	1.60	2.46	.96	.70	.07	—.13	.18	1.40
17	.18	.03	3.36	.38	1.54	1.93	.77	.95	—.09	.01	—.01	.95
18	.17	.14	4.68	.46	1.40	1.76	.64	.93	—.12	—.13	—.11	.56
19	.14	—.09	5.84	.44	1.40	3.07	1.25	.81	—.16	—.28	—.19	.30
20	.12	—.09	5.10	.55	1.50	2.80	2.75	.70	—.16	—.31	—.22	.25
21	.12	.00	3.45	.49	1.80	1.98	1.95	.69	—.23	—.31	—.24	1.13
22	.08	.20	2.00	.39	2.61	1.48	1.27	.56	—.21	—.31	—.29	1.36
23	.08	.37	1.52	.31	4.54	1.27	1.11	.54	—.21	—.27	—.31	.77
24	.06	.33	1.47	.84	4.61	1.13	1.00	.54	—.23	—.29	—.36	.41
25	.06	.33	1.01	.49	3.77	1.06	.85	.51	.47	—.32	—.36	.25
26	.04	.05	.80	.34	2.86	1.06	.84	.47	.23	—.21	—.37	.17
27	.04	.18	.73	.52	2.03	1.56	.73	.42	.13	—.22	—.38	.14
28	.06	.09	.80	.62	1.65	2.28	.66	.56		—.27	—.39	.32
29	.03	.16	.74	.40	-------	1.76	.58	.48	.05	—.18	—.39	.17
30	.02	—.08	.68	.45	-------	1.53	.69	.42	.11	—.21	—.40	.07
31	.02	-------	.66	.42	-------	1.44	-------	.37	-------	—.24	—.40	-------

Note.—Stage-discharge relation Dec. 28 to Feb. 6 affected by ice. Gage heights June 28 and Sept. 7-10 not observed.

Daily discharge, in second-feet, of Brokenstraw Creek at Youngsville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4,320	98	86	150	130	620	570	635	182	82	50	31
2	2,800	92	118	170	130	595	570	860	158	76	48	30
3	1,510	84	108	160	130	545	620	800	140	67	45	30
4	695	84	105	160	130	522	500	620	128	63	40	30
5	458	88	110	150	130	458	418	522	105	62	40	30
6	378	82	300	150	140	522	358	458	98	52	135	31
7	319	84	522	140	248	800	338	458	98	78	67	31
8	319	96	920	140	695	1,300	319	398	86	203	50	30
9	265	86	1,230	140	3,960	1,660	300	358	90	95	53	30
10	248	82	980	140	6,310	1,230	300	338	82	68	60	29
11	230	84	522	130	4,560	1,230	300	695	72	68	53	29
12	212	82	398	120	2,800	1,580	282	640	63	63	43	37
13	191	80	265	120	1,580	1,040	248	479	65	46	197	62
14	164	89	200	120	980	1,100	265	398	62	44	428	300
15	175	88	372	110	920	1,740	500	358	63	45	218	212
16	152	92	522	120	695	1,230	398	300	108	65	135	595
17	135	98	1,900	130	645	860	319	398	72	92	88	398
18	132	125	3,100	140	595	800	282	398	67	65	68	248
19	125	72	4,320	140	595	1,660	522	338	60	43	55	170
20	120	72	3,520	140	645	1,440	1,440	300	60	39	50	155
21	150	90	1,900	140	300	920	920	300	49	39	48	500
22	310	140	980	120	1,300	645	522	248	52	39	41	545
23	140	191	645	120	2,900	522	458	248	52	44	39	319
24	105	179	620	120	3,000	479	418	248	49	41	34	203
25	105	179	418	120	2,240	458	358	230	221	38	34	155
26	100	102	338	130	1,510	418	358	221	149	52	33	132
27	100	135	319	140	920	695	319	206	132	50	32	125
28	105	112	240	170	905	1,100	282	197	112	44	31	173
29	98	130	220	140	-------	800	265	209	102	56	31	132
30	95	74	200	140	-------	645	300	206	118	52	30	108
31	95	-------	190	130	-------	620	-------	191	-------	48	30	-------

Note.—Discharge estimated Dec. 28 to Feb. 6, because of ice, from weather records, study of gage height graph and comparison with similar studies for French Creek at Saegertown and Oil Creek near Rouseville, and July 28 and Sept. 7-10, because of no gage height record, by interpolation.

Monthly discharge of Brokenstraw Creek at Youngsville, for the year ending September 30, 1925.

(Drainage area 290 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	4,320	95	454	1.57	1.81
November	191	72	102	.352	.39
December	4,320	86	828	2.86	3.30
January	180	110	138	.476	.55
February	6,310	130	1,410	4.86	5.06
March	1,740	418	911	3.14	3.62
April	1,440	248	435	1.50	1.67
May	860	191	397	1.37	1.58
June	221	49	96.1	.331	.37
July	203	38	61.9	.213	.25
August	438	30	74.7	.258	.30
September	595	29	163	.562	.63
The Year	6,310	29	417	1.44	19.55

OHIO BASIN—STATION NO. 3

TIONESTA CREEK AT NEBRASKA

Location.—At single-span steel highway bridge, Nebraska, Forest County, on road to Newmansville, about one-third of a mile downstream from the mouth of Coon Creek.

Drainage Area.—473 square miles.

Records Available.—October 24, 1909, to September 30, 1912, and August 5, 1923, to September 30, 1925. Records prior to August 5, 1923, are contained in the Report of Flood Commission, Pittsburgh, Pennsylvania.

Gage.—Standard chain attached to downstream side of bridge; read to hundredths twice daily by Gerould Klinestiver and Neil Jones. Elevation of gage zero 1,077.78 feet.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—The left bank is high and not subject to overflow; right is of medium height and overflows during extremely high stages. Bed is composed of gravel and rock; probably permanent. Control is the sill of an old dam a few hundred feet downstream from the gage.

Extremes of Stage.—Maximum gage height during the year, estimated from hydrograph, 12.6 feet at 3 a. m. February 12; minimum, 4.00 feet on September 4.

Ice.—Stage-discharge relation usually affected by ice.

The following discharge measurement was made by R. J. Ferris: No. 19, September 18: Gage height, 1.27 feet: discharge, 77.3 second-feet.

Daily Mean Gage Height, in feet, of Tionesta Creek at Nebraska, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.95	4.62	4.54	6.12	6.46	7.02	6.45	6.02	5.42	5.42	4.70	4.10
2	8.23	4.54	4.54	5.95	6.34	7.02	6.35	6.52	5.22	5.18	4.76	4.10
3	7.38	4.62	4.62	5.85	6.85	6.92	6.25	6.28	5.38	5.02	4.51	4.05
4	6.78	4.58	4.58	5.81	6.82	6.58	6.14	6.36	5.35	4.92	4.49	4.00
5	6.38	4.48	4.60	5.60	6.68	6.52	5.95	7.22	5.05	4.82	4.42	4.05
6	6.00	4.49	4.66	5.78	6.50	6.22	5.80	7.02	4.90	4.80	4.58	4.10
7	5.78	4.48	5.02	5.72	6.50	6.32	5.75	6.70	4.80	5.08	5.05	4.14
8	5.65	4.56	5.36	5.66	8.06	6.70	5.70	6.52	4.75	5.12	4.65	4.15
9	5.50	4.56	6.30	5.72	11.34	7.00	5.62	6.25	5.00	4.98	4.56	4.10
10	5.35	4.60	5.81	5.68	10.90	6.90	5.75	6.40	4.80	4.95	4.50	4.10
11	5.20	4.52	5.54	5.70	11.53	7.38	5.88	7.02	4.78	4.82	4.58	4.10
12	5.12	4.59	5.54	5.78	11.75	7.52	5.80	7.35	4.84	4.78	4.49	4.10
13	5.08	4.62	5.56	5.80	9.95	7.00	5.62	7.08	4.72	4.58	4.42	4.22
14	5.08	4.60	5.50	5.76	8.70	7.26	5.58	6.78	4.71	4.59	5.15	4.58
15	4.98	4.69	5.50	5.94	7.92	7.68	5.95	6.55	4.69	4.52	4.98	4.72
16	4.92	4.70	5.50	6.00	7.38	7.16	5.92	6.40	4.74	4.51	4.62	4.62
17	4.86	4.62	6.94	6.14	7.00	7.02	5.74	7.32	4.74	4.84	4.52	4.52
18	4.82	4.40	9.14	6.12	6.30	7.10	5.70	7.00	4.67	4.86	4.42	4.54
19	4.86	4.49	9.42	6.08	6.42	8.02	5.66	6.55	4.62	4.62	4.40	4.44
20	4.79	4.58	9.07	6.01	6.30	8.15	6.05	6.35	4.59	4.56	4.44	4.44
21	4.78	4.48	8.17	5.96	6.22	7.60	5.98	6.18	4.54	4.50	4.49	4.55
22	4.76	4.74	7.50	6.13	6.56	7.22	5.82	6.02	4.58	4.50	4.40	4.52
23	4.70	4.80	6.92	6.19	7.88	6.81	5.82	6.02	4.67	4.49	4.40	4.48
24	4.68	4.84	6.83	6.29	8.95	6.58	5.76	6.60	4.60	4.45	4.30	4.42
25	4.65	4.70	6.38	6.20	8.45	6.45	5.70	7.02	4.69	4.45	4.25	4.40
26	4.60	4.42	5.65	5.99	8.34	6.30	5.68	6.45	5.08	4.45	4.25	4.32
27	4.56	4.42	5.80	6.09	8.46	6.52	5.58	6.12	5.82	4.64	4.25	4.30
28	4.50	4.46	6.32	6.62	7.88	7.52	5.50	5.98	5.50	4.78	4.20	4.34
29	4.52	4.61	6.20	6.84	-------	6.88	5.44	5.85	5.75	4.69	4.10	4.30
30	4.48	4.39	6.20	6.72	-------	6.67	5.58	5.62	6.25	4.72	4.10	4.35
31	4.64	-------	6.22	6.80	-------	6.53	-------	5.45	-------	4.62	4.12	-------

Note.—Stage-discharge relation Nov. 28 to Dec. 7, and Dec. 27, to Feb. 9 affected by ice.

OHIO BASIN—STATION NO. 4

OIL CREEK NEAR ROUSEVILLE

Location.—At two-span steel highway bridge, one-half mile downstream from Rouseville, Venango County.

Drainage Area.—330 square miles.

Records Available.—October 20, 1909, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Mrs. Lenna Copeland.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Left bank is high and not subject to overflow; right becomes inundated at a stage of about 9.2 feet. Bed is composed of gravel and boulders. Control is the first of a series of riffles extending from 250 to 450 feet downstream from the gage; practically permanent.

Extremes of Discharge.— Maximum stage during the year, 4.91 feet observed at 4 p. m. February 10 (discharge, 6,250 second-feet); minimum, 0.58 foot at 5.30 p. m. September 2 (discharge, 38 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 50 and 10,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

The following discharge measurement was made by R. J. Ferris: No. 46, August 3: Gage height, 0.77 foot; discharge, 42.6 second-feet.

Daily Mean Gage Height, in feet, of Oil Creek near Rouseville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.88	0.88	0.91	1.28	1.11	1.86	1.72	2.01	1.11	0.87	0.81	0.60
2	2.64	.88	.86	1.33	1.03	1.90	1.75	2.02	1.07	.92	.80	.59
3	2.00	.88	.86	1.22	1.08	1.67	1.72	1.92	1.04	.88	.80	.60
4	1.72	.88	.88	1.31	1.15	1.71	1.60	1.75	1.01	.85	.76	.60
5	1.59	.88	.88	1.19	1.09	1.63	1.49	1.75	.96	.83	.74	.60
6	1.41	.88	1.00	1.18	1.12	1.71	1.41	1.67	.94	.83	.71	.65
7	1.36	.88	1.44	1.11	1.22	2.31	1.41	1.63	.93	.95	.70	.63
8	1.30	.88	1.56	1.11	1.81	2.46	1.41	1.55	.90	1.02	.72	.62
9	1.24	.88	2.04	1.06	3.47	2.36	1.35	1.48	.90	1.11	.73	.62
10	1.16	.86	1.55	1.04	4.65	2.14	1.43	1.41	.87	1.36	.75	.62
11	1.11	.84	1.37	1.09	4.07	2.27	1.44	2.16	.85	1.09	.73	.67
12	1.08	.84	1.30	1.07	3.36	2.12	1.36	1.92	.84	.98	.73	.63
13	1.04	.84	1.42	1.11	2.63	1.85	1.27	1.67	.84	.88	.75	.85
14	1.02	.90	1.58	1.07	2.20	2.38	1.31	1.57	.83	.84	1.12	1.23
15	1.02	.90	1.42	1.01	2.06	2.42	1.91	1.49	.82	.84	.88	1.62
16	1.00	.88	1.47	1.03	1.82	2.05	1.67	1.41	.82	1.02	.78	1.31
17	.98	.86	2.77	1.14	1.90	1.96	1.51	1.87	.79	1.15	.70	1.06
18	.96	.82	3.67	1.15	1.52	1.93	1.45	1.67	.78	.95	.70	.93
19	.94	.80	3.91	1.08	1.65	2.71	1.46	1.56	.80	.84	.69	.83
20	.93	.87	3.46	1.07	1.46	2.39	2.04	1.49	.80	.82	.68	.80
21	.92	.89	2.44	1.04	1.61	2.07	1.65	1.39	.79	.80	.74	1.11
22	.92	.96	1.95	1.08	2.46	1.88	1.50	1.36	.79	.80	.67	.95
23	.90	1.01	1.82	1.01	3.31	1.73	1.46	1.34	.91	.80	.66	.80
24	.89	1.00	1.76	1.00	3.46	1.63	1.86	1.39	.88	.78	.64	.78
25	.88	.99	1.61	1.03	2.63	1.59	1.65	1.48	1.27	.76	.63	.76
26	.86	.93	1.39	1.11	2.63	1.53	1.66	1.32	1.11	.83	.62	.71
27	.89	.92	1.41	1.03	2.09	2.00	1.53	1.26	1.12	.81	.62	.70
28	.88	.90	1.39	1.11	1.85	2.46	1.44	1.21	1.02	.80	.60	.80
29	.88	.90	1.31	-------	-------	2.08	1.37	1.20	1.01	.78	.60	.72
30	.86	.93	1.31	1.15	-------	1.89	1.47	1.17	.92	.75	.60	.76
31	.86	-------	1.37	1.11	-------	1.85	-------	1.13	-------	.77	.62	-------

Note.—Stage-discharge relation Jan. 2-9 affected by ice. Gage height Jan. 29 not observed.

Daily discharge, in second-feet, of Oil Creek near Rouseville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,990	86	93	217	154	605	480	750	154	84	72	40
2	1,630	86	82	180	128	650	520	750	140	96	70	39
3	750	86	82	170	144	442	480	650	131	86	70	40
4	480	86	86	160	168	480	405	520	121	80	64	40
5	405	86	86	150	147	442	329	520	107	76	60	40
6	281	86	147	140	157	480	281	442	101	76	56	47
7	255	86	299	130	193	1,110	281	442	98	104	54	44
8	225	86	370	130	560	1,320	281	370	90	124	57	43
9	201	86	805	120	3,170	1,180	250	323	90	154	59	43
10	171	82	370	131	5,560	920	293	281	84	255	62	43
11	154	78	260	147	4,420	1,040	299	920	80	147	59	43
12	144	78	225	140	2,970	860	255	650	78	112	59	44
13	131	78	287	154	1,630	605	213	442	78	86	62	80
14	124	90	405	140	980	1,250	230	370	76	78	157	197
15	124	90	287	121	805	1,250	650	329	74	78	86	124
16	118	86	317	128	560	805	442	281	74	124	67	250
17	112	82	1,790	164	650	700	335	605	68	168	54	137
18	107	74	3,570	168	335	700	305	442	67	104	54	93
19	101	70	3,990	144	442	1,710	311	370	70	78	53	76
20	98	84	3,170	140	311	1,250	805	329	70	74	51	70
21	96	88	1,320	131	405	805	442	270	68	70	60	154
22	96	107	700	144	1,320	650	335	255	68	70	50	104
23	90	121	569	121	2,770	520	311	245	93	70	48	70
24	88	118	520	118	3,170	442	605	270	86	67	46	67
25	96	115	405	128	1,630	405	442	323	213	64	44	64
26	82	98	270	154	1,630	370	442	235	154	76	43	56
27	88	96	281	128	860	750	370	209	157	72	43	54
28	86	90	270	154	605	1,320	299	189	124	70	40	70
29	86	90	230	178	-------	860	260	185	121	67	40	57
30	82	98	230	168	-------	650	317	174	96	62	40	64
31	82	-------	260	154	-------	605	-------	160	-------	65	43	-------

Note.—Discharge estimated Jan. 2-9, because of ice, from weather records, study of gage height graph and comparison with similar studies for Brokenstraw Creek at Youngsville and Shenango River at Sharon, and Jan. 29, because of no gage height record.

Monthly discharge of Oil Creek near Rouseville, for the year ending September 30, 1925.

(Drainage area 330 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	3,990	82	341	1.03	1.19
November	121	70	89.6	.272	.30
December	3,990	82	702	2.13	2.46
January	217	118	147	.445	.51
February	5,560	128	1,280	3.88	4.04
March	1,710	370	812	2.46	2.84
April	805	213	376	1.14	1.27
May	920	160	397	1.20	1.38
June	213	67	101	.306	.34
July	255	62	94.7	.287	.33
August	157	40	58.8	.178	.21
September	230	39	75.9	.230	.26
The Year	5,560	39	368	1.12	15.13

OHIO BASIN—STATION NO. 5

FRENCH CREEK AT KIMMEYTOWN

Location.—At single-span steel highway bridge, Kimmeytown, Erie County, about 4 miles upstream from the mouth of South Branch French Creek and about 5 miles north of Union City.

Drainage Area.—207 square miles.

Records Available.—May 16, 1910, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Mrs. J. L. Carter. Elevation of gage zero 1,235.7 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Right bank begins to overflow at a stage of 8.2 feet; left is high and not subject to overflow. Bed is composed of gravel and boulders. Control for low water is at the first of a series of riffles extending from 10 to 60 feet downstream from the gage; probably shifts occasionally.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 9.9 feet at 4 a. m. February 10 (discharge, 7,260 second-feet); minimum, 0.42 foot from 4.20 p. m. June 7 to 7.10 a. m. June 13 (discharge, 7.0 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined to 5,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

The following discharge measurement was made by R. J. Ferris: No. 37, July 31: Gage height, 0.77 foot; discharge, 23.9 second-feet.

Daily Mean Gage Height, in feet, of French Creek at Kimmeytown, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.50	0.90	1.18	2.10	2.22	2.30	2.19	1.80	0.83	0.69	0.71	0.58
2	4.42	.88	1.39	2.03	2.22	2.05	2.60	3.00	.76	.69	.68	.56
3	3.07	.89	1.57	1.92	2.10	1.87	3.01	2.97	.72	.68	.67	.54
4	2.21	.87	1.33	1.94	2.38	1.86	2.40	2.34	.57	.64	.68	.56
5	1.79	.90	1.11	2.19	2.30	1.80	1.95	2.08	.58	.62	.66	.54
6	1.56	.87	1.54	2.19	2.29	1.99	1.75	1.85	.47	.65	.70	.55
7	1.42	.88	2.55	2.40	2.36	2.42	1.60	1.45	.43	.64	.74	.69
8	1.38	.86	3.68	2.23	3.56	3.81	1.52	1.30	.42	.64	.64	.57
9	1.30	.90	2.95	2.38	6.60	3.94	1.42	1.41	.42	.62	.70	.55
10	1.21	.89	2.95	2.41	8.42	3.17	1.36	1.50	.42	.64	.81	.57
11	1.15	.88	2.37	2.55	5.12	4.72	1.40	1.80	.42	.62	.85	.57
12	1.13	.86	1.75	2.49	3.70	3.90	1.37	1.53	.42	.62	.85	.61
13	1.05	.86	1.82	2.20	3.14	2.98	1.32	1.49	.56	.60	.96	.90
14	1.02	.96	1.83	2.44	3.00	4.25	1.23	1.27	.68	.59	.98	1.05
15	1.00	.98	2.06	2.59	2.67	4.08	1.47	1.22	.67	.59	.91	1.73
16	1.00	.97	2.12	2.63	2.36	3.21	1.41	1.09	.68	.59	.90	2.23
17	1.01	.95	4.43	2.52	2.36	2.93	1.30	1.42	.67	.64	.76	2.06
18	.98	.95	5.40	2.50	2.01	2.83	1.23	1.41	.71	.65	.70	1.50
19	.99	.92	5.94	2.60	2.01	3.87	1.50	1.27	.67	.68	.71	1.14
20	.97	.92	5.10	2.53	1.83	3.68	3.45	1.11	.64	.68	.74	1.11
21	.93	.91	3.03	2.55	2.53	2.81	2.62	1.08	.64	.66	.76	3.27
22	.96	1.01	2.39	2.44	5.32	2.28	1.88	1.04	.64	.63	.74	2.77
23	.93	1.18	2.23	2.39	6.31	1.99	1.76	1.01	.66	.67	.71	1.69
24	.93	1.20	2.16	2.25	5.70	1.84	1.66	1.00	.64	.68	.68	1.16
25	.91	1.19	2.09	2.20	3.82	1.85	1.45	.96	.86	.68	.66	.80
26	.97	1.07	1.96	2.14	3.40	1.85	1.38	.94	.82	.72	.64	.77
27	.97	1.05	1.97	2.27	2.54	2.26	1.28	.87	.89	.68	.63	.96
28	.93	1.01	1.87	2.38	2.20	3.05	1.21	.85	.84	.66	.60	1.12
29	.92	.99	1.87	2.38	-------	2.51	1.14	.96	.82	.68	.52	1.25
30	.94	1.09	2.13	2.36	-------	2.22	1.17	.97	.71	.70	.50	1.12
31	.92	-------	2.23	2.32	-------	2.30	-------	.98	-------	.72	.48	-------

Note.—Stage-discharge relation Dec. 1-4 and Dec. 23 to Feb. 9 affected by ice.

Daily discharge, in second-feet, of French Creek at Kimmeytown, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3,230	55	70	120	90	435	400	275	44	25	27	17
2	1,510	52	70	110	90	350	540	700	34	25	25	16
3	745	54	70	110	90	290	700	700	29	24	24	14
4	400	50	70	110	90	290	470	452	16	21	24	16
5	275	55	92	110	99	275	320	365	17	20	23	14
6	200	50	200	100	110	335	260	290	9.8	22	26	15
7	165	52	540	100	160	470	215	172	7.5	21	32	18
8	155	49	1,070	100	360	1,130	185	135	7.0	21	21	16
9	135	55	1,250	90	2,000	1,190	165	162	7.0	20	26	15
10	112	54	700	90	5,310	790	150	185	7.0	21	42	16
11	100	52	382	90	2,000	1,720	160	275	7.0	20	48	16
12	96	49	260	90	1,070	1,190	152	200	7.0	20	48	19
13	80	49	275	90	745	700	140	182	16	18	64	55
14	74	55	290	90	700	1,370	118	128	24	17	67	80
15	70	67	350	90	580	1,310	178	115	24	17	56	260
16	70	66	365	90	452	790	162	88	24	17	55	418
17	72	62	1,510	100	452	660	135	165	24	21	34	350
18	67	62	2,240	110	335	620	118	162	27	22	26	185
19	68	58	2,690	110	335	1,190	185	128	24	24	27	98
20	65	58	2,000	110	290	1,070	895	92	21	24	32	92
21	60	56	700	110	505	620	540	86	21	23	34	840
22	64	72	470	110	2,160	435	305	78	21	20	32	620
23	60	106	340	100	3,050	335	266	72	23	24	27	245
24	30	110	240	90	2,510	290	230	70	21	24	24	102
25	56	108	180	90	1,130	290	172	64	49	24	23	40
26	66	84	170	90	895	290	155	61	43	29	21	36
27	66	80	160	90	505	418	130	50	54	24	20	64
28	60	72	160	110	400	700	112	48	46	23	18	94
29	58	68	150	110	-------	505	98	64	43	24	13	122
30	61	88	140	100	-------	400	104	66	27	26	12	94
31	58	-------	140	90	-------	435	-------	67	-------	29	10.4	-------

Note.—Discharge Dec. 1-4 and Dec. 23 to Feb. 9 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for French Creek at Saegertown and Oil Creek near Rouseville.

Monthly discharge of French Creek at Kimmeytown, for the year ending September 30, 1925. (Drainage area 207 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	3,230	56	270	1.30	1.50
November	110	49	64.9	.314	.35
December	2,690	70	559	2.70	3.11
January	120	90	100	.483	.56
February	5,310	90	947	4.57	4.76
March	1,720	275	674	3.26	3.76
April	895	98	258	1.25	1.40
May	700	48	184	.889	1.02
June	54	7.0	24.1	.116	.13
July	29	17	22.3	.108	.12
August	67	10.4	31.0	.150	.17
September	840	14	133	.643	.72
The Year	5,310	7.0	268	1.29	17.60

OHIO BASIN—STATION NO. 6

FRENCH CREEK AT SAEGERTOWN

Location.—At single-span steel highway bridge, at lower end of Saegertown, Crawford County, about one-half mile upstream from the mouth of Woodcock Creek.

Drainage Area.—586 square miles.

Records Available.—April 23, 1921, to September 30, 1925. Discharge measurements have been made at the station since August 5, 1915.

Gage.—Standard chain attached to upstream side of bridge, read by Frank L. Peters.

Discharge Measurements.—Made from upstream side of bridge or by wading.

Channel and Control.—Right bank becomes inundated at a stage of 13 feet; left is high and not subject to overflow. Bed is composed of gravel and boulders. Control is at a riffle, about 700 feet downstream from the gage, at the head of an island; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 12.0 feet at midnight February 10-11 (discharge, about 12,000 second feet); minimum, 2.20 feet at 6 p. m. September 8 (discharge, 50 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 2,000 second-feet and fairly well defined between 2,000 and 9,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

The following discharge measurement was made by R. J. Ferris: No. 25 July 24: Gage height, 2.37 feet; discharge, 62.6 second-feet.

Daily Mean Gage Height, in feet, of French Creek at Saegertown, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10.06	2.67	2.81	6.65	5.12	4.42	4.22	3.60	2.68	2.57	2.44	2.36
2	9.53	2.64	2.92	6.25	5.04	4.38	4.34	4.49	2.64	2.51	2.45	2.34
3	7.07	2.60	3.09	6.13	5.02	4.08	4.85	4.98	2.58	2.51	2.43	2.30
4	4.98	2.59	2.84	6.00	5.02	4.02	4.58	4.60	2.61	2.48	2.44	2.28
5	4.12	2.58	2.92	5.97	4.90	3.94	4.08	4.28	2.53	2.44	2.52	2.25
6	3.78	2.58	3.08	6.00	4.86	4.20	3.74	4.00	2.51	2.42	2.65	2.25
7	3.56	2.57	3.90	5.88	5.05	5.22	3.52	3.90	2.51	2.43	2.50	2.24
8	3.42	2.60	4.75	5.82	7.00	6.46	3.44	3.82	2.48	2.50	2.45	2.22
9	3.34	2.61	6.10	5.80	9.05	6.54	3.35	3.62	2.48	2.62	2.42	2.24
10	3.20	2.62	5.34	5.69	10.18	5.78	3.31	3.42	2.45	2.62	2.42	2.28
11	3.10	2.60	4.32	5.71	11.15	6.24	3.34	3.76	2.42	2.56	2.45	2.25
12	3.03	2.60	3.85	5.58	8.44	6.92	3.28	3.86	2.42	2.56	2.60	2.28
13	2.98	2.56	3.90	5.52	6.22	5.84	3.18	3.44	2.42	2.44	3.09	2.75
14	2.91	2.62	4.10	5.39	5.24	6.55	3.16	3.25	2.39	2.41	3.22	3.02
15	2.84	2.64	3.78	5.28	5.06	7.08	3.26	3.12	2.36	2.40	3.02	3.72
16	2.81	2.64	4.15	5.32	4.72	6.02	3.44	3.02	2.41	2.40	2.76	4.21
17	2.82	2.68	6.35	5.49	4.95	5.30	3.24	3.28	2.49	2.43	2.62	4.06
18	2.79	2.67	8.55	5.60	4.23	5.16	3.14	3.48	2.41	2.43	2.52	3.50
19	2.79	2.68	9.32	5.60	4.00	6.38	3.21	3.29	2.38	2.44	2.50	3.22
20	2.74	2.65	9.23	5.56	3.98	6.55	4.65	3.10	2.40	2.44	2.42	2.98
21	2.74	2.66	7.62	5.52	4.47	5.42	4.96	3.00	2.42	2.38	2.43	3.42
22	2.72	2.76	5.42	5.51	7.24	4.70	4.15	2.93	2.44	2.37	2.42	4.47
23	2.68	2.91	4.32	5.39	8.41	4.22	4.66	2.89	2.46	2.36	2.41	3.88
24	2.70	3.03	4.32	5.31	9.35	3.98	5.00	2.90	2.47	2.38	2.36	3.22
25	2.69	3.06	4.16	5.30	8.35	3.87	4.01	2.85	2.66	2.36	2.38	2.98
26	2.70	2.95	3.72	5.28	6.72	3.82	3.65	2.84	2.87	2.42	2.36	2.74
27	2.68	2.86	3.62	5.32	5.58	4.12	3.48	2.77	2.76	2.41	2.34	2.72
28	2.66	2.86	5.11	5.46	4.48	5.21	3.26	2.72	2.72	2.43	2.30	2.77
29	2.66	2.82	7.47	5.43		4.72	3.15	2.73	2.69	2.46	2.32	2.79
30	2.63	2.76	7.26	5.36	-------	4.40	3.17	2.73	2.62	2.45	2.35	2.86
31	2.65	-------	7.00	5.24	-------	4.28	-------	2.73	-------	2.45	2.32	-------

Note.—Stage-discharge relation Dec. 1-3 and Dec. 24 to Feb. 9 affected by ice.

Daily discharge, in second-feet, of French Creek at Saegertown for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,000	212	220	280	220	1,310	1,170	770	216	165	114	89
2	6,910	197	220	280	220	1,310	1,240	1,380	197	140	118	83
3	3,610	178	280	280	220	1,100	1,590	1,750	170	140	111	72
4	1,730	174	299	280	220	1,030	1,450	1,450	183	129	114	68
5	1,100	170	343	280	220	965	1,100	1,240	149	114	144	61
6	900	170	450	260	280	1,170	835	1,030	140	107	202	61
7	770	165	1,030	260	400	1,880	705	965	140	111	136	59
8	640	178	1,590	260	1,700	3,000	672	900	129	136	118	54
9	608	183	2,640	260	4,600	3,000	608	770	129	183	107	59
10	510	188	1,960	240	8,200	2,370	575	640	118	188	107	68
11	459	178	1,240	240	10,400	2,730	608	900	107	161	118	61
12	420	178	900	240	5,210	3,400	575	965	107	161	178	94
13	378	161	965	240	2,730	2,370	510	672	107	114	450	252
14	337	192	1,100	220	1,880	3,100	480	542	97	104	510	390
15	299	197	900	220	1,800	3,610	542	450	89	100	390	835
16	282	197	1,170	220	1,520	2,550	672	390	104	100	257	1,170
17	293	216	2,910	260	1,450	1,960	542	575	132	111	188	1,030
18	272	212	5,490	280	1,170	1,880	480	705	104	111	144	705
19	272	216	6,580	280	1,030	2,910	510	575	94	114	136	510
20	246	202	6,420	280	1,030	3,100	1,450	450	100	104	107	378
21	246	207	4,170	280	1,380	2,040	1,730	390	107	94	111	640
22	236	257	2,040	280	3,720	1,520	1,170	349	114	92	107	1,380
23	216	337	1,240	260	5,210	1,170	1,520	326	122	89	104	965
24	226	420	850	260	6,740	1,030	1,730	331	125	89	89	510
25	221	420	600	220	5,210	965	1,030	304	207	89	94	378
26	226	360	506	220	3,200	900	770	299	315	107	89	246
27	216	309	460	260	3,100	1,100	705	262	257	104	83	236
28	207	309	400	280	1,380	1,880	542	236	236	111	72	262
29	207	288	360	280		1,520	480	241	221	122	78	272
30	192	257	340	280	-------	1,310	480	241	188	118	86	369
31	202	-------	300	260	-------	1,240	-------	241	-------	118	78	-------

Note.—Discharge Dec. 1-3 and Dec. 24 to Feb. 9 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for French Creek at Kimmeytown, Oil Creek near Rouseville and Shenango River at Sharon.

Monthly discharge of French Creek at Saegertown, for the year ending September 30, 1925
(Drainage area 586 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	8,000	192	981	1.67	1.92
November	420	161	231	.394	.44
December	6,580	220	1,550	2.65	3.06
January	280	220	259	.442	.51
February	10,400	220	2,660	4.54	4.73
March	3,610	900	1,920	3.28	3.78
April	1,730	480	882	1.51	1.68
May	1,730	236	655	1.12	1.29
June	315	89	150	.256	.29
July	188	89	120	.205	.24
August	510	72	153	.261	.30
September	1,380	54	377	.643	.72
The Year	10,400	54	817	1.39	18.96

OHIO BASIN—STATION NO. 7

CUSSEWAGO CREEK NEAR MEADVILLE

Location.—At single-span steel highway bridge near Jones' Farm, about four and one-half miles northwest of Meadville, Crawford County.

Drainage Area.—88 square miles.

Records Available.—May 3, 1910, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Thomas McCay. Elevation of gage zero 1,071.77 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are subject to overflow; the right becomes inundated at a stage of about 8.6 feet and the left at about 9.1 feet. Bed is composed of sand, gravel and boulders. Low-water control is a gravel bar 5 feet downstream from the gage; practically permanent. Control for medium and high stages is an old dam about 4 miles downstream from the station.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 11.3 feet at midnight February 9-10 (discharge, about 1,230 second-feet); minimum, 0.48 foot several times in September (discharge, 1.3 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined below 900 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

The following discharge measurement was made by R. J. Ferris: No. 41, July 24: Gage height, 0.53 foot; discharge, 2.07 second-feet. Measurement made by wading at gage.

Daily Mean Gage Height, in feet, of Cussewago Creek near Meadville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10.22	1.31	1.70	2.80	3.08	4.92	4.02	3.07	1.15	0.86	0.66	0.52
2	9.65	1.30	1.61	2.72	3.03	4.40	3.82	4.13	1.09	.84	.84	.51
3	8.99	1.29	1.55	2.66	3.03	4.74	4.98	3.93	1.02	.74	.88	.50
4	7.61	1.28	1.52	2.78	2.91	4.07	4.70	3.51	.97	.73	.78	49
5	4.56	1.25	1.59	2.93	2.76	3.70	3.47	3.18	.93	.74	.72	.48
6	3.12	1.24	2.09	2.99	2.70	4.05	2.83	3.28	.87	.81	1.03	.49
7	2.83	1.22	3.45	2.95	2.95	5.92	2.50	3.15	.85	.82	1.56	.50
8	2.80	1.22	4.34	2.99	5.67	7.43	2.33	3.16	.81	.83	1.35	.48
9	2.64	1.24	5.53	3.00	9.55	8.06	2.17	2.79	.77	.80	1.06	.49
10	2.39	1.22	6.05	2.98	10.95	8.02	2.11	2.39	.75	1.03	.95	.50
11	2.22	1.22	4.77	2.89	9.94	7.20	2.27	3.00	.71	1.13	.92	.50
12	2.04	1.21	3.30	2.85	9.38	7.69	2.29	3.75	.67	1.39	.90	.50
13	1.88	1.20	3.68	2.88	8.92	7.82	2.10	2.90	.65	1.37	1.47	.88
14	1.76	1.27	5.43	2.96	7.82	7.18	1.95	2.35	.65	1.12	4.04	1.90
15	1.69	1.36	5.87	2.97	6.48	7.93	2.19	2.01	.63	.94	4.18	3.00
16	1.63	1.36	5.61	2.93	5.66	8.57	2.23	1.79	.60	.85	2.67	4.96
17	1.60	1.40	6.78	3.04	5.49	7.23	2.01	2.10	.58	.80	1.76	5.75
18	1.57	1.36	8.40	3.32	5.22	5.65	1.84	3.82	.61	.72	1.37	4.07
19	1.53	1.30	10.00	3.62	4.74	6.81	1.87	3.13	.58	.66	1.13	2.52
20	1.50	1.27	9.94	3.68	4.40	7.85	2.97	2.45	.53	.60	.95	1.94
21	1.47	1.32	9.35	3.50	5.07	8.13	3.64	2.03	.54	.58	.89	2.30
22	1.44	1.56	8.34	3.35	7.52	6.00	2.83	1.77	.54	.57	.92	3.05
23	1.42	2.11	6.18	3.24	9.59	4.05	3.70	1.61	.62	.54	.85	2.32
24	1.38	2.44	4.65	3.08	9.87	3.46	5.69	1.63	.74	.53	.74	1.71
25	1.36	2.48	4.24	3.01	9.18	3.23	4.78	1.68	1.06	.52	.68	1.43
26	1.36	2.25	4.35	3.06	8.46	3.18	3.62	1.64	1.12	.52	.63	1.24
27	1.34	2.06	3.68	3.52	7.49	3.33	2.37	1.51	1.10	.53	.61	1.12
28	1.32	1.81	3.20	3.96	5.96	4.26	2.02	1.37	1.08	.56	.57	1.11
29	1.32	1.76	3.02	4.10	-------	4.28	1.81	1.31	1.11	.56	.56	1.30
30	1.32	1.80	2.92	3.61	-------	3.74	1.93	1.27	.96	.54	.54	1.36
31	1.32	-------	2.86	3.23	-------	3.96	-------	1.23	-------	.56	.54	-------

Note.—Stage-discharge relation Dec. 13-15 and Dec. 25 to Feb. 6 affected by ice.

Daily discharge in second-feet, of Cussewago Creek near Meadville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	970	13	23	46	38	181	127	77	10	4.8	2.5	1.5
2	827	13	20	46	38	151	115	133	8.8	4.5	4.5	1.5
3	705	13	19	46	36	169	187	121	7.4	3.3	5.1	1.4
4	453	13	18	42	34	133	169	97	6.5	3.2	3.7	1.4
5	163	12	20	42	34	109	97	82	5.8	3.3	3.1	1.3
6	77	12	35	42	38	127	64	87	4.9	4.1	8.2	1.4
7	64	11	92	40	70	249	50	82	4.6	4.2	19	1.4
8	62	11	145	40	234	422	44	82	4.1	4.4	14	1.3
9	56	12	220	40	827	538	36	62	3.6	4.0	8.2	1.4
10	46	11	257	38	1,160	520	35	46	3.4	7.6	6.2	1.4
11	38	11	175	36	896	393	40	72	3.0	9.6	5.7	1.4
12	34	11	87	36	785	469	42	115	2.6	15	5.4	1.4
13	29	11	90	34	686	485	35	67	2.4	14	17	4.4
14	24	12	180	34	485	393	30	44	2.4	9.4	127	29
15	23	14	90	34	305	502	38	32	2.3	6.0	139	72
16	22	14	227	34	234	629	40	26	2.0	4.6	56	187
17	20	15	340	34	220	393	32	35	1.9	4.0	24	241
18	19	14	592	38	199	227	28	115	2.1	3.1	14	133
19	19	13	920	38	169	340	28	77	1.9	2.5	9.6	50
20	18	12	896	42	151	485	70	48	1.6	2.0	6.2	30
21	17	13	785	42	193	538	103	34	1.6	1.9	5.2	42
22	16	19	574	40	437	257	64	24	1.6	1.8	5.7	72
23	16	35	275	38	827	127	109	20	2.2	1.6	4.6	42
24	15	48	163	34	806	97	234	22	3.3	1.6	3.3	23
25	14	50	110	34	745	82	175	23	8.2	1.5	2.7	16
26	14	40	85	34	610	82	72	22	9.4	1.5	2.3	12
27	14	34	70	34	437	87	44	18	9.0	1.6	2.1	9.4
28	13	26	60	34	257	145	32	14	8.6	1.8	1.8	9.2
29	13	24	60	34	-------	145	26	13	9.2	1.8	1.8	13
30	13	26	55	36	-------	109	30	12	6.3	1.6	1.6	14
31	13	-------	50	38	-------	127	-------	12	-------	1.8	1.6	-------

Note—Discharge Dec. 13-15 and Dec. 25 to Feb. 6 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for French Creek at Saegertown and Oil Creek near Rouseville.

Monthly discharge of Cussewago Creek near Meadville, for the year ending September 30, 1925.

(Drainage area 88 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	970	13	123	1.40	1.61
November,	50	11	18.8	.214	.24
December,	920	18	217	2.47	2.85
January,	46	34	38.1	.433	.50
February,	1,160	34	394	4.48	4.66
March,	629	82	281	3.19	3.68
April,	234	26	73.2	.832	.93
May,	133	12	55.3	.628	.72
June,	10	1.6	4.69	.053	.06
July,	15	1.5	4.26	.048	.06
August,	139	1.6	16.5	.188	.22
September,	241	1.3	33.9	.385	.43
The Year,	1,160	1.3	103	1.17	15.96

OHIO BASIN—STATION NO. 8

FRENCH CREEK AT CARLTON

Location.—At two-span steel highway bridge, Carlton, Mercer County.

Drainage Area.—1,000 square miles.

Records Available.—April 29, 1908, to March 31, 1925, when the station was discontinued.

Gage.—Standard chain attached to downstream side of bridge; read by Charles Coefield. Elevation of gage zero 1,033.60 feet, United States Geological Survey datum.

Channel and Control.—Right bank is high and not subject to overflow; left is of medium height and overflow begins at a stage of about 10 feet. Bed is composed of sand, gravel and boulders. At low stages the flow is in several channels. Control is at a riffle at the measuring section; practically permanent.

Extremes of Discharge.—Maximum stage during the period, October 1, 1924, to March 31, 1925, 10.75 feet at 5 p. m. February 11 (discharge, about 14,800 second-feet); minimum, 0.38 foot at 5 p. m. November 8 (discharge, 135 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined below 3,000 second-feet and well defined between 3,000 and 13,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

Cooperation.—Station is maintained in cooperation with United States Engineer Office, Pittsburgh, Pa.

Daily Mean Gage Height, in feet, of French Creek at Carlton, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.18	0.70	1.14	1.98	3.45	3.35						
2	9.39	.68	1.27	1.85	3.70	2.75						
3	8.30	.62	.98	1.76	4.20	2.92						
4	6.00	.60	.80	1.83	4.15	2.65						
5	4.02	.56	.85	1.90	3.35	2.88						
6	3.30	.50	1.11	1.90	3.90	3.08						
7	2.95	.40	1.81	1.82	4.35	3.85						
8	2.67	.39	2.72	1.65	5.30	5.10						
9	2.40	.43	4.17	1.70	7.00	5.64						
10	2.23	.50	4.20	1.93	9.08	5.05						
11	2.00	.50	3.15	2.32	10.58	4.85						
12	1.80	.50	2.36	2.50	9.72	5.73						
13	1.72	.49	2.35	2.33	7.33	5.10						
14	1.1	.43	2.80	2.70	5.58	5.10						
15	1.47	.40	2.50	-------	4.80	5.91						
16	1.38	.40	2.43	-------	4.12	5.50						
17	1.30	.50	4.90	-------	3.92	4.60						
18	1.22	.50	6.82	-------	3.58	4.13						
19	1.04	.50	3.58	-------	3.02	5.13						
20	1.00	.50	8.65	4.60	2.90	5.55						
21	1.00	.50	7.90	3.70	2.99	5.00						
22	.98	.67	5.32	3.70	5.93	4.15						
23	.92	.95	4.00	3.70	7.42	3.27						
24	.84	1.10	3.35	3.70	8.47	2.82						
25	.80	1.23	2.95	3.70	8.37	2.62						
26	.80	1.18	2.75	3.70	6.75	2.52						
27	.80	1.10	2.54	3.35	5.32	2.95						
28	.74	.98	2.50	3.35	4.04	3.88						
29	.73	.90	2.44	3.60	-------	3.78						
30	.71	.95	2.17	3.65	-------	3.30						
31	.70	-------	2.00	3.40	-------	2.80						

Note.—Stage-discharge relation Dec. 1-3 and Dec. 25 to Feb. 9 affected by ice. Gage heights Jan. 15-19 not observed. Station discontinued Mar. 31, 1925.

Daily discharge, in second-feet, of French Creek at Carlton, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10,900	240	300	550	460	2,150						
2	11,300	233	280	560	420	1,620						
3	9,090	212	280	480	420	1,700						
4	5,260	205	280	480	320	1,460						
5	2,760	191	302	480	420	1,700						
6	2,060	170	425	480	480	1,880						
7	1,790	140	850	480	1,000	2,550						
8	1,540	138	1,540	460	2,400	4,030						
9	1,360	149	2,980	420	5,560	4,690						
10	1,140	170	2,980	420	10,700	3,900						
11	990	170	1,970	420	14,200	3,660						
12	850	170	1,300	400	12,000	4,830						
13	780	167	1,300	400	7,330	4,030						
14	710	149	1,620	380	4,690	4,160						
15	620	140	1,380	380	3,660	5,110						
16	590	140	1,300	400	2,870	4,550						
17	530	170	3,780	420	2,650	4,690						
18	475	170	6,490	460	2,350	2,870						
19	400	170	9,650	480	1,790	4,030						
20	375	170	9,650	480	1,700	4,690						
21	375	170	8,370	460	1,790	3,900						
22	365	230	4,290	420	4,160	2,980						
23	335	350	2,760	420	7,560	2,000						
24	298	425	2,150	400	9,460	1,620						
25	280	502	1,500	400	9,270	1,460						
26	280	475	1,100	420	6,490	1,380						
27	280	425	900	460	4,290	1,790						
28	256	365	800	460	2,760	2,650						
29	252	325	760	480	-------	2,550						
30	244	350	650	480	-------	2,060						
31	240	-------	600	460	-------	1,620						

Note.—Discharge Dec. 1-3 and Dec. 25 to Feb. 9 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for French Creek at Saegertown and Oil Creek near Rouseville. Station discontinued Mar. 31, 1925.

Monthly discharge of French Creek at Carlton, for the year ending September 30, 1925.
(Drainage area 1,000 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	11,300	240	1,830	1.83	2.11
November,	502	138	236	.236	.26
December,	9,650	280	2,340	2.34	2.70
January,	550	380	446	.446	.51
February,	14,200	420	4,330	4.33	4.51
March,	5,110	1,380	2,980	2.98	3.44
April,					
May,					
June,					
July,					
August,					
September,					
The Year,					

Note.—Station discontinued March 31, 1925.

OHIO BASIN—STATION NO. 9

ALLEGHENY RIVER AT FRANKLIN

Location.—At four-span steel highway bridge, Eighth Street, Franklin, Venango County.

Drainage Area.—6,010 square miles.

Records Available.—April 1, 1905, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge in first span from left end; read by W. C. Rivers. Elevation of gage zero 958.26 feet, United States Geological Survey datum.

Discharge Measurements.—Made from upstream side of bridge.

Channel and Control.—Both banks are high and do not overflow until a stage of 22 feet is reached. Bed is composed of gravel and boulders. Control is at a riffle, 200 feet long, about 1,000 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 12.8 feet at 10 a. m. February 12 (discharge, 70,900 second-feet); minimum, —0.04 foot from 6 p.m. September 5 to 6 p. m. September 6 (discharge, 750 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 800 and 110,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

Cooperation.—Station is maintained in cooperation with United States Engineer Office, Pittsburgh, Pa.

The following discharge measurement was made by R. J. Ferris: No. 22, August 3: Gage height, 0.62 foot; discharge, 1,670 second-feet.

Daily Mean Gage Height, in feet, of Allegheny River at Franklin, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	11.01	0.70	0.32	3.29	3.13	4.88	3.95	2.84	1.50	1.27	0.63	0.03
2	9.71	.68	.30	4.80	3.13	4.61	3.76	3.44	1.40	1.09	.63	.02
3	8.05	.66	.27	4.83	3.13	3.91	3.75	3.72	1.30	1.03	.59	.00
4	6.25	.64	.38	4.48	3.13	3.67	3.71	3.62	1.23	.83	.62	—.02
5	4.89	.62	.59	4.27	3.15	3.40	3.41	3.54	1.13	.69	.55	—.04
6	3.78	.60	.84	4.22	3.23	3.45	3.07	3.46	1.00	.62	.52	—.04
7	3.15	.56	1.20	4.85	3.38	3.77	2.82	3.33	.89	.87	.94	—.03
8	2.75	.56	1.90	4.46	4.33	4.67	2.62	3.20	.82	.93	.90	—.02
9	2.50	.56	3.28	5.36	6.33	5.44	2.48	3.06	.76	1.07	.70	.00
10	2.27	.56	3.72	5.14	10.93	5.35	2.42	2.96	.76	1.19	.58	.02
11	2.06	.53	3.14	5.00	12.32	5.21	2.42	3.54	.75	.96	1.08	.00
12	1.88	.52	2.56	4.85	12.43	5.89	2.34	4.02	.70	.76	1.32	—.02
13	1.75	.52	2.35	5.18	10.78	5.55	2.24	3.80	.65	.63	1.01	.14
14	1.63	.52	2.44	4.98	9.35	5.31	2.16	3.34	.58	.51	1.55	.48
15	1.51	.52	2.17	4.64	8.31	6.53	2.76	3.02	.49	.39	2.26	.78
16	1.43	.52	1.78	4.45	7.00	6.29	2.91	2.78	.48	.41	1.96	1.18
17	1.37	.52	3.63	4.37	6.15	5.43	2.72	3.10	.47	.67	1.69	1.71
18	1.29	.50	7.80	4.19	5.65	4.97	2.48	3.12	.47	.62	1.26	1.58
19	1.23	.48	9.28	3.99	4.14	5.86	2.34	2.96	.46	.53	1.00	1.30
20	1.15	.50	9.80	3.95	3.69	6.60	3.54	2.74	.44	.43	.82	1.06
21	1.08	.54	8.41	3.86	3.43	6.01	4.98	2.48	.40	.39	.72	1.62
22	1.03	.64	6.61	3.79	4.31	5.21	4.26	2.29	.32	.35	.59	2.63
23	.96	.74	5.07	3.61	6.67	4.47	3.47	2.12	.41	.27	.49	2.32
24	.91	.82	4.42	3.44	9.00	3.95	3.84	2.46	.42	.21	.40	1.66
25	.86	.85	3.78	3.31	8.79	3.61	3.32	2.52	.63	.16	.34	1.24
26	.82	.83	2.76	3.21	7.74	3.40	3.05	2.26	.87	.24	.27	.98
27	.76	.76	2.12	3.13	6.94	3.49	2.82	2.04	1.08	.27	.22	.82
28	.74	.70	1.97	3.11	5.73	4.53	2.60	1.88	1.15	.35	.18	.79
29	.72	.62	1.89	3.11	-------	4.87	2.40	1.74	1.21	.39	.13	.71
30	.71	.45	2.04	3.11	-------	4.44	2.32	1.66	1.38	.39	.10	.66
31	.70	-------	2.64	3.11	-------	4.14	-------	1.58	-------	.63	.06	-------

Note.—Stage-discharge relation Dec. 30 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of Allegheny River at Franklin, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	57,300	1,830	1,200	3,200	2,600	17,800	13,300	8,420	3,870	3,120	1,740	865
2	48,200	1,830	1,200	3,200	2,600	16,300	12,500	10,800	3,560	2,720	1,740	800
3	36,300	1,740	1,130	2,800	2,400	12,900	12,500	12,100	3,260	2,600	1,660	800
4	25,200	1,740	1,350	2,800	2,400	12,100	12,100	11,700	3,120	2,120	1,660	775
5	17,800	1,660	1,660	2,400	2,400	10,800	10,800	11,200	2,850	1,830	1,580	750
6	12,500	1,660	2,120	2,400	2,600	10,800	9,600	11,200	2,470	1,660	1,500	750
7	10,000	1,580	2,980	2,400	4,200	12,500	8,420	10,400	2,230	2,120	2,350	762
8	8,420	1,580	5,160	2,400	11,000	16,800	7,640	10,000	2,020	2,350	2,230	775
9	7,260	1,580	10,400	2,400	25,800	20,400	7,260	9,600	1,920	2,600	1,830	800
10	6,530	1,580	12,100	2,400	56,600	20,400	6,890	9,200	1,920	2,980	1,660	850
11	5,840	1,580	9,600	2,400	66,900	19,300	6,890	11,200	1,920	2,350	2,720	800
12	5,160	1,500	7,640	2,400	67,700	23,400	6,530	13,300	1,830	1,920	3,260	775
13	4,830	1,500	6,890	2,400	55,900	21,600	6,180	12,500	1,740	1,740	2,470	998
14	4,180	1,500	6,890	2,400	46,100	19,800	6,180	10,400	1,660	1,500	4,180	1,500
15	3,870	1,500	6,180	2,200	38,400	27,000	8,420	9,200	1,500	1,350	6,530	2,020
16	3,720	1,500	4,830	2,400	30,000	25,800	8,810	8,420	1,500	1,350	5,560	2,980
17	3,410	1,500	11,700	2,400	25,200	20,400	8,030	9,600	1,420	1,740	4,500	4,530
18	3,260	1,500	34,900	2,400	18,300	18,300	7,260	9,600	1,420	1,660	3,120	4,180
19	3,120	1,500	45,400	2,400	13,800	23,400	6,530	9,200	1,420	1,580	2,470	3,260
20	2,850	1,500	48,900	2,400	12,100	27,600	11,200	8,030	1,420	1,420	2,020	2,600
21	2,720	1,580	39,100	2,400	10,800	24,000	18,300	7,260	1,350	1,350	1,830	4,180
22	2,600	1,740	27,600	2,400	14,800	19,300	14,800	6,530	1,200	1,270	1,660	7,640
23	2,350	1,920	18,800	2,400	28,200	15,800	13,300	5,840	1,350	1,130	1,500	6,530
24	2,230	2,020	15,300	2,400	43,300	13,300	12,500	7,260	1,350	1,060	1,350	4,500
25	2,120	2,120	12,500	2,400	41,900	11,700	10,400	7,260	1,740	998	1,270	3,120
26	2,020	2,120	8,420	2,400	34,200	10,800	9,200	6,530	2,120	1,130	1,130	2,470
27	1,920	1,920	5,840	2,400	29,400	11,200	8,420	5,500	2,720	1,130	1,060	2,020
28	1,920	1,830	5,500	2,400	22,200	15,800	7,640	5,160	2,850	1,270	1,060	2,020
29	1,830	1,660	5,160	2,400	-------	17,800	6,890	4,500	2,980	1,350	998	1,830
30	1,830	1,420	4,800	2,600	-------	15,300	6,530	4,500	3,560	1,350	930	1,740
31	1,830	-------	3,800	2,600	-------	13,800	-------	4,180	-------	1,740	865	-------

Note.—Discharge Dec. 30 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Allegheny River at Red House and Franklin, Oil Creek near Rouseville and Shenango River at Sharon.

Monthly discharge of Allegheny River at Franklin, for the year ending September 30, 1925. (Drainage area 6,010 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	57,300	1,830	9,460	1.57	1.81
November	2,120	1,420	1,670	.278	.31
December	48,900	1,130	11,900	1.98	2.28
January	3,200	2,200	2,480	.413	.48
February	67,700	2,400	25,400	4.23	4.40
March	27,600	10,800	17,600	2.93	3.38
April	18,300	6,180	9,500	1.58	1.76
May	13,300	4,180	8,730	1.45	1.67
June	3,870	1,200	2,140	.356	.40
July	3,120	998	1,760	.293	.34
August	6,530	865	2,210	.368	.42
September	7,640	750	2,250	.374	.42
The Year	67,700	750	7,830	1.30	17.67

OHIO BASIN—STATION NO. 10

EAST BRANCH CLARION RIVER AT INSTANTER

Location.—At single-span steel highway bridge, Instanter, Elk County, about 30 feet downstream from the mouth of Seven Mile Creek.

Drainage Area.—39 square miles.

Records Available.—December 10, 1924, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by A. L. Anderson.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Banks are low but do not overflow except during extremely high stages. Bed is composed of gravel and boulders. Control is at a riffle about 90 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the period, estimated from hydrograph, 6.4 feet at 11 p.m. February 11 (discharge, 730 second-feet); minimum, 1.61 feet at 7.30 a. m. August 28 (discharge 2.6 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 75 second-feet and fairly well defined between 75 and 200 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for high stages when they may be only fair.

Cooperation.—Station is maintained in cooperation with Tannery Waste Disposal Committee of Pennsylvania.

Discharge measurements of East Branch Clarion River at Instanter, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
1	Oct. 22	B. A. Knight	-------	17.1
2	Dec. 9	A. L. Anderson	2.96	79.3
3	May 28	do	2.46	44.6
4	July 10	Anderson & Alsop	2.05	16.0
5	27	Alsop & Cavett	2.07	18.1
6	Aug. 12	do	1.75	6.73
7	17	do	1.77	7.55
8	24	do	1.67	3.50
9	Sept. 11	E. S. Cavett	1.64	3.26
10	18	do	2.41	41.4

Daily Mean Gage Height, in feet, of Instanter Creek at Instanter, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				2.38			2.90	2.69	2.32		2.08	1.63
2				2.34	2.25	3.26	2.92	2.76	2.28			1.63
3				2.33	2.42	3.05	2.82		2.28		1.92	1.65
4					2.32	2.96	2.76	2.76	2.21		1.88	1.63
5				2.28	2.26	2.86		3.30	2.16		1.86	1.63
6				2.24	2.31	2.86	2.62	3.14	2.12	2.04	1.84	
7				2.09	2.46		2.57	3.14		2.42	1.81	1.71
8				2.24			2.52	3.02	2.80	2.20	1.79	1.67
9				2.20	3.63	3.16	2.48		2.72	2.08		1.65
10			2.62	2.23	4.88	3.06	2.57		2.39	2.04	1.85	1.64
11			2.50		5.76	3.28	2.58	3.53	2.27	2.02	1.78	1.63
12			2.46	2.12	5.80	3.08		3.18	2.21		1.75	1.62
13			2.48	2.14	4.76	2.97	2.44	3.10	2.15	1.94	1.93	
14				2.10	4.16	3.28	2.45	3.06		1.91	2.12	1.84
15			2.40	2.11			2.58	2.96	2.21	1.89	1.91	1.74
16			2.36	2.08	3.54	3.04	2.49	2.85	2.19	2.09		1.77
17			3.43	2.28	3.40	3.02	2.44		2.06	2.11	1.77	1.79
18			4.05		3.10	3.05	2.40	3.10	2.02	1.98	1.73	1.92
19			4.70	2.13	3.04	3.88		2.93	2.01		1.72	1.89
20			4.24	2.13	2.98	3.44	2.62	2.84	1.98	1.86	1.72	
21				2.08	2.92	3.32	2.48	2.76		1.88	1.80	1.91
22			3.52	2.12			2.45	2.71		2.03	1.71	1.77
23			3.32	2.08	4.62	3.10	2.42	2.67		1.88		1.71
24			3.16	2.08	4.22	3.02	2.43			1.84	1.67	1.70
25					4.00	2.92	2.41	2.82		1.83	1.67	1.69
26			2.80	2.10	4.40	2.84		2.65			1.65	1.65
27			2.76	2.26	3.76	3.13	2.42	2.56		2.06	1.65	
28				2.40	3.48	3.31	2.38	2.50		2.10	1.63	1.83
29			2.58	2.16			2.35	2.51			1.65	1.73
30			2.57	2.16		3.02	2.50			1.98		1.69
31			2.46	2.12		2.98				1.98	1.65	

Note.—Station established Dec. 10, 1924. Stage-discharge relation Dec. 12-16, Dec. 21 to Jan. 6 and Jan. 8 to Feb. 10 affected by ice. Gage height not observed on days of no record.

Daily discharge, in second-feet, of East Branch Clarion River at Instanter, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				26	12	110	74	58	32	65	20	3.1
2				26	14	104	74	62	30	48	16	3.1
3				26	17	86	66	60	36	44	13	3.6
4				24	17	78	62	62	26	34	11	3.1
5				24	14	70	55	109	24	26	10	3.1
6				22	12	70	51	96	22	18	9.4	4
7				20	12	110	48	96	24	38	8.4	5.1
8				20	14	110	44	82	66	26	7.7	4.1
9				18	65	96	43	70	58	20	9	3.6
10			51	18	240	86	48	80	36	18	9.8	3.4
11			44	17	553	109	51	129	30	17	7.4	3.1
12			36	17	558	91	44	100	26	16	6.4	2.9
13			32	16	313	78	40	91	24	14	13	13
14			28	15	214	109	40	86	22	12	22	9.4
15			26	15	160	100	51	78	26	12	12	6.1
16			28	14	129	86	43	70	26	20	9	7.0
17			124	14	119	82	40	80	19	22	7.0	4.8
18			187	14	91	86	37	95	17	15	5.8	13
19			295	13	86	174	48	74	16	12	5.4	12
20			214	13	82	124	51	70	15	10	5.4	13
21			130	13	74	109	43	62	16	11	8.0	13
22			90	12	190	100	40	58	14	18	5.1	7.0
23			60	12	277	91	38	54	14	11	4	5.1
24			44	12	214	82	39	60	22	9.4	4.1	4.8
25			34	12	187	74	38	66	28	9.1	4.1	4.6
26			96	12	244	70	38	54	50	12	3.6	3.6
27			24	15	162	96	38	48	38	19	3.6	5
28			20	15	129	109	36	44	30	21	3.1	9.1
29			20	13		85	34	44	60	22	3.6	5.8
30			20	12		82	44	55	90	15	4	4.6
31			24	12		82		48		15	3.6	

Note.—Station established Dec. 10, 1924. Discharge estimated Dec. 12-16, Dec. 21 to Jan. 6 and Jan. 8 to Feb. 10, because of ice, from weather records, study of gage height graph and comparison with similar studies for Clarion River near Piney and Driftwood Branch Sinnemahoning Creek at Sterling Run, and Feb. 15, 22, Mar. 1, 7, 8, 15, 22, 29, Apr. 5, 12, 19, 26, May 3, 9, 10, 17, 24, 30, 31, June 7, 14, June 21 to July 5, July 12, 19, 26, 29, Aug. 2, 9, 16, 23, 30, Sept. 6, 13, 20 and 27, because of no gage height record, from weather records, study of gage height graphs, discharge of Clarion River near Piney and at adjacent stations.

Monthly discharge of East Branch Clarion River at Instanter, for the year ending September 30, 1925.

(Drainage area 39 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October					
November					
December 10-31					
January	295	20	70.8	1.82	1.49
February	26	12	16.5	.423	.49
March	553	12	147	3.77	3.93
April	174	70	94.8	2.43	2.80
May	74	34	46.6	1.19	1.33
June	129	44	72.2	1.85	2.13
July	90	14	31.0	.795	.89
August	65	9.1	21.0	.538	.62
September	20	3.6	8.21	.211	.24
The Year	13	3.1	6.07	.156	.17

Note.—Station established Dec. 10, 1924.

OHIO BASIN—STATION NO. 11

CLARION RIVER NEAR PINEY

Location.—At hydro-electric plant dam of the Penn Public Service Corporation about two and one-half miles upstream from Piney, Clarion County.

Drainage Area.—980 square miles.

Records Available.—October 1, 1924, to September 30, 1925.

Computations of Discharge.—From records of turbine discharge, rated gate openings, flow over dam and changes in amount of storage.

Record furnished by Penn Public Service Corporation, Johnstown, Pa.

Daily discharge, in second-feet, of Clarion River near Piney, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,680	254	110	918	611	2,905	1,733	851	1,134	1,513	342	35
2	4,457	220	116	686	596	2,740	1,615	1,175	981	929	394	81
3	3,074	254	150	661	830	2,005	1,573	1,192	822	794	415	35
4	2,192	220	208	770	1,153	1,943	1,458	1,070	747	579	280	35
5	1,701	220	167	563	1,283	1,817	1,320	1,915	619	509	255	35
6	1,423	164	289	486	1,014	1,736	1,100	2,515	545	549	212	35
7	1,065	169	393	660	1,220	1,910	1,024	2,095	509	561	240	69
8	972	137	641	671	2,355	2,105	729	1,890	457	758	178	46
9	911	173	1,386	431	4,010	2,115	874	1,093	518	1,544	185	70
10	636	199	1,320	408	10,380	2,070	923	1,700	790	1,033	187	35
11	700	185	969	486	12,940	2,070	1,174	2,685	530	735	220	69
12	594	146	729	497	16,160	2,365	1,143	3,440	436	648	150	81
13	478	126	780	472	8,610	1,828	952	2,650	374	510	220	69
14	437	220	983	416	5,755	2,005	859	2,205	289	417	174	104
15	462	208	663	428	4,085	2,665	845	1,928	323	324	270	153
16	498	208	706	317	3,665	2,155	932	1,687	369	361	255	104
17	396	254	2,118	177	2,895	2,015	836	1,783	312	400	205	150
18	332	148	4,911	601	2,225	2,035	765	1,910	336	517	104	104
19	369	123	5,528	715	1,923	3,430	729	1,522	246	359	150	116
20	304	185	5,357	511	1,800	4,260	735	1,280	216	311	105	104
21	300	140	3,694	494	1,695	3,065	706	1,210	210	262	116	126
22	324	171	2,855	321	1,684	2,350	612	1,120	205	228	105	116
23	324	254	2,124	437	3,420	2,410	641	1,168	196	370	139	69
24	278	289	2,240	486	5,050	2,310	656	3,045	278	378	104	104
25	289	174	1,718	451	4,110	1,692	620	3,320	475	253	81	81
26	180	169	794	440	4,085	1,620	625	3,260	1,058	255	69	69
27	278	185	883	470	3,875	1,758	581	2,680	588	258	70	69
28	223	174	1,111	590	2,650	2,883	512	2,030	545	454	81	69
29	243	174	810	550	-------	2,405	487	1,690	1,227	543	70	116
30	208	150	716	486	-------	1,943	527	1,640	2,704	499	70	69
31	255	-------	950	411	-------	1,713	-------	1,330	-------	471	70	-------

Monthly discharge of Clarion River near Piney, for the year ending September 30, 1925.
(Drainage area 980 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	8,680	180	1,050	1.07	1.23
November	289	123	190	.194	.22
December	5,528	110	1,460	1.49	1.72
January	918	177	516	.527	.61
February	16,160	596	3,930	4.01	4.18
March	4,260	1,620	2,270	2.32	2.68
April	1,783	487	910	.929	1.04
May	3,440	851	1,930	1.97	2.27
June	2,704	205	601	.613	.68
July	1,544	228	559	.570	.66
August	415	69	178	.182	.21
September	153	35	80.6	.082	.09
The Year	16,160	35	1,120	1.14	15.59

OHIO BASIN—STATION NO. 12

RED BANK CREEK AT SAINT CHARLES

Location.—At single-span steel railroad bridge, Saint Charles, Clarion County.

Drainage Area.—540 square miles.

Records Available.—October 19, 1909, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge: read by W. H. Bish. Elevation of gage zero 976.24 feet, United States Geological Survey datum.

Discharge Measurements.—Made from upstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of rocks and fairly regular. Control is at the first of a series of riffles, where the bed is composed of large boulders and ledge, about 200 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, 9.50 feet observed at 8 a. m. February 10 (discharge, about 13,500 second-feet); minimum, 0.85 foot at 4 p. m. September 8 (discharge, 31 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 1,000 second-feet and fairly well defined between 1,000 and 10,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

Daily Mean Gage Height, in feet, of Red Bank Creek at Saint Charles, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.90	1.33	1.39	2.11	2.13	3.15	2.56	2.42	2.23	2.77	1.29	0.93
2	4.10	1.31	1.35	1.93	2.21	2.76	2.50	2.34	2.15	2.17	1.41	.91
3	3.22	1.31	1.35	1.84	2.29	2.60	2.42	2.41	2.06	1.58	1.34	.93
4	2.78	1.31	1.35	1.88	3.25	2.45	2.32	2.63	1.93	1.49	1.23	.96
5	2.55	1.29	1.37	1.92	4.05	2.29	2.25	2.67	1.76	1.44	1.21	.94
6	2.38	1.23	1.38	1.78	3.70	2.40	2.15	2.73	1.70	1.41	1.14	.90
7	2.29	1.23	1.86	1.81	3.40	2.39	2.08	2.71	1.63	1.40	1.11	.89
8	2.25	1.21	2.20	1.79	4.02	3.03	1.97	2.56	1.61	1.39	1.10	.87
9	2.15	1.21	2.80	1.87	5.50	2.87	1.92	2.48	1.61	1.41	1.10	.91
10	1.95	1.29	2.27	1.79	8.55	2.74	1.93	3.04	1.58	1.95	1.08	.90
11	1.82	1.25	1.94	1.83	6.75	2.62	1.92	4.25	1.49	1.84	1.16	.92
12	1.82	1.26	1.99	1.77	5.70	2.63	1.90	4.02	1.43	1.90	1.12	.94
13	1.75	1.25	2.18	1.79	5.15	2.61	1.90	3.17	1.59	1.78	1.11	.91
14	1.66	1.27	2.40	1.81	5.30	2.62	1.91	2.74	1.46	1.58	1.16	.92
15	1.64	1.26	2.16	1.82	4.70	2.68	1.85	2.71	1.40	1.41	1.12	1.00
16	1.61	1.49	2.15	1.76	4.00	2.67	1.78	2.69	1.46	1.35	1.58	1.13
17	1.61	1.42	3.71	1.77	3.31	2.66	1.75	2.80	1.45	1.45	1.27	1.21
18	1.56	1.34	4.15	1.82	3.06	2.74	1.82	2.76	1.44	1.42	1.17	1.16
19	1.54	1.27	4.52	1.80	2.87	3.07	1.82	2.62	1.45	1.39	1.11	1.10
20	1.47	1.23	4.40	1.75	2.56	3.82	1.83	2.44	1.40	1.30	1.11	1.06
21	1.47	1.29	3.65	1.81	2.30	3.17	1.74	2.31	1.35	1.32	1.10	1.08
22	1.43	1.27	2.91	1.79	2.22	2.85	1.70	2.34	1.24	1.30	1.06	1.03
23	1.39	1.26	2.72	1.75	2.55	2.76	1.72	2.29	1.21	1.49	1.06	1.04
24	1.37	1.49	2.62	1.77	2.78	2.70	1.73	4.17	1.23	1.56	1.02	.98
25	1.39	1.43	2.52	1.81	3.13	2.69	1.72	4.67	1.87	1.54	1.00	.95
26	1.41	1.37	2.45	1.79	3.22	2.46	1.76	3.77	2.29	1.44	1.01	.96
27	1.39	1.29	2.37	1.81	3.32	2.57	1.72	3.17	1.85	1.37	.90	.99
28	1.37	1.32	2.28	1.83	3.39	2.53	1.68	2.87	1.87	1.39	.97	1.02
29	1.31	1.39	2.22	1.81	-------	2.56	2.17	2.69	2.11	1.30	.99	1.00
30	1.35	1.37	2.15	1.87	-------	2.48	2.78	2.70	2.24	1.28	.92	1.04
31	1.33	-------	2.11	1.89	-------	2.54	-------	2.41	-------	1.29	.95	-------

Note.—Stage-discharge relation Dec. 23 to Jan. 5, and Jan. 7 to Feb. 6 affected by ice.

Dily discharge, in second-feet, of Red Bank Creek at Saint Charles, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,250	128	142	280	200	1,140	666	576	493	793	118	42
2	2,190	122	132	280	200	793	635	548	441	441	148	38
3	1,140	122	132	280	200	696	576	576	392	207	130	42
4	826	122	132	280	260	606	520	728	345	172	102	40
5	666	118	128	260	360	520	493	728	261	157	98	49
6	576	102	140	280	700	576	441	793	242	148	81	37
7	520	102	301	240	1,330	576	416	760	224	145	74	36
8	493	98	466	240	2,050	970	345	666	207	142	72	33
9	441	98	826	240	4,480	860	322	635	207	148	72	38
10	345	118	493	240	11,200	793	345	970	207	345	68	37
11	280	108	345	220	7,110	696	322	2,330	172	301	86	40
12	280	110	368	220	4,860	728	322	2,050	154	322	77	43
13	261	108	466	220	3,930	696	322	1,140	207	280	74	38
14	224	112	576	220	4,110	696	322	793	163	207	86	40
15	224	110	441	220	3,090	760	301	760	145	148	77	52
16	207	172	441	240	2,050	728	280	760	163	132	207	79
17	207	151	1,670	240	1,230	728	261	826	160	160	112	98
18	191	130	2,330	240	1,050	793	280	793	157	151	88	86
19	191	112	2,780	240	860	1,050	280	696	160	142	74	72
20	166	102	2,630	240	666	1,790	301	606	145	120	74	64
21	166	118	1,550	240	520	1,140	261	520	132	125	72	68
22	154	112	895	240	466	860	242	548	105	120	64	58
23	142	110	700	240	666	793	242	520	98	172	64	60
24	138	172	600	240	826	760	261	2,330	102	191	56	49
25	142	154	500	220	1,050	760	242	3,090	301	191	52	44
26	148	138	420	220	1,140	606	261	1,790	520	157	54	46
27	142	118	400	200	1,230	666	242	1,140	301	138	37	50
28	138	125	360	200	1,330	666	242	860	301	142	48	56
29	122	142	340	200	-------	666	441	760	416	120	50	52
30	132	138	320	200	-------	635	826	760	493	115	40	60
31	128	-------	300	200	-------	666	-------	576	-------	118	44	-------

Note—Discharge Dec. 23 to Jan. 5 and Jan. 7 to Feb. 6 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Oil Creek near Rouseville, Clarion River near Piney and Kiskiminitas River at Avonmore.

Monthly discharge of Red Bank Creek at Saint Charles, for the year ending September 30, 1925. (Drainage area 540 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	5,250	122	524	0.970	1.12
November	172	98	122	.226	.25
December	2,780	132	688	1.27	1.46
January	280	200	236	.437	.50
February	11,200	200	2,040	3.78	3.94
March	1,790	520	788	1.46	1.68
April	826	242	367	.680	.76
May	3,090	520	988	1.83	2.11
June	520	98	247	.457	.51
July	793	115	202	.374	.43
August	207	37	80.6	.149	.17
September	98	33	51.6	.096	.11
The Year	11,200	33	519	.961	13.04

OHIO BASIN—STATION NO. 13

MAHONING CREEK NEAR DAYTON

Location.—At single-span steel highway bridge, known as Independence Bridge, about three miles northwest of Dayton, Armstrong County.

Drainage Area.—322 square miles.

Records Available.—August 12, 1916, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by La Vern Mathews.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of gravel and boulders. Control for low stages is at the first of a series of riffles about 50 feet downstream from the gage; practically permanent; for high stages a dam about one mile downstream.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 8.1 feet at 2 a. m. February 12 (discharge, about 7,000 second-feet); minimum, 1.48 feet several days in September (discharge, 18 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 40 and 1,500 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for extreme stages when they are fair.

Daily Mean Gage Height, in feet, of Mahoning Creek near Dayton, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.44	1.89	1.82	2.58	3.29	3.94	2.53	2.51	2.62	2.62	2.19	1.71
2	3.56	1.88	1.80	2.52	3.34	3.87	2.49	2.49	2.47	2.49	2.04	1.65
3	3.15	1.86	1.80	2.46	3.37	3.72	2.48	2.48	2.33	2.33	1.87	1.68
4	2.95	1.86	1.80	2.42	3.41	3.60	2.46	2.53	2.16	2.11	1.83	1.67
5	2.74	1.85	1.82	2.39	3.44	3.42	2.44	2.65	2.02	1.93	1.79	1.65
6	2.56	1.84	2.32	2.38	3.51	3.27	2.43	2.77	2.01	1.89	1.75	1.62
7	2.45	1.85	2.26	2.36	3.79	3.06	2.41	2.87	1.99	2.11	1.72	1.61
8	2.41	1.86	2.86	2.39	5.48	3.92	2.38	2.96	1.96	3.11	1.70	1.59
9	2.32	1.86	2.75	2.33	6.88	2.89	2.36	2.90	1.96	2.61	1.68	1.55
10	2.27	1.86	2.71	2.31	7.28	2.83	2.34	3.41	1.96	2.73	1.66	1.53
11	2.22	1.84	2.67	2.34	7.58	2.77	2.32	5.89	1.96	2.41	1.99	1.51
12	2.19	1.84	2.69	2.37	7.93	2.72	2.29	4.65	1.99	2.13	1.95	1.51
13	2.17	1.84	3.01	2.39	7.48	2.70	2.24	3.46	1.93	1.98	1.78	1.49
14	2.14	1.91	3.19	2.39	6.88	2.72	2.32	3.03	1.83	1.87	2.35	1.47
15	2.13	1.91	3.11	2.47	5.53	3.11	2.35	2.83	1.73	1.85	2.16	1.50
16	2.12	1.88	3.00	2.52	4.58	3.32	2.23	2.71	2.00	1.83	2.04	1.54
17	2.10	1.87	2.96	2.81	4.08	3.24	2.17	2.84	1.89	1.85	1.93	1.50
18	2.09	1.86	3.48	2.85	3.71	3.18	2.11	2.76	2.26	1.85	1.78	1.55
19	2.08	1.85	3.71	2.88	3.57	3.21	2.15	2.51	2.21	1.81	1.76	1.72
20	2.08	1.84	3.53	2.90	3.40	3.19	2.85	2.37	2.03	1.79	1.81	1.75
21	2.06	1.85	3.38	2.97	3.24	3.17	3.01	2.27	1.91	2.40	1.88	1.78
22	2.04	1.93	3.25	3.07	3.34	3.06	2.90	2.22	1.89	2.31	2.04	1.74
23	2.03	1.95	3.15	3.14	3.60	2.89	2.82	2.31	2.04	2.15	1.98	1.72
24	2.00	1.92	3.02	3.17	3.57	2.77	2.77	4.66	2.25	2.13	1.96	1.68
25	1.97	1.91	2.94	3.15	3.42	2.71	2.71	5.79	2.21	2.10	1.91	1.66
26	1.96	1.89	2.85	3.13	3.90	2.69	2.64	4.89	2.07	2.10	1.86	1.62
27	1.94	1.87	2.81	3.12	3.94	2.77	2.59	3.86	1.99	2.08	1.82	1.62
28	1.93	1.86	2.76	3.15	3.87	2.87	2.52	3.23	1.92	2.06	1.79	1.63
29	1.92	1.84	2.73	3.20	-------	2.81	2.41	3.03	2.86	2.05	1.75	1.62
30	1.91	1.84	2.69	3.33	-------	2.71	2.34	2.88	2.74	2.02	1.74	1.71
31	1.90	-------	2.64	3.31	-------	2.61	-------	2.75	-------	2.03	1.73	-------

Note.—Stage-discharge relation Dec. 21 to Feb. 10 affected by ice.

Daily discharge, in second-feet, of Mahoning Creek near Dayton, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,790	68	54	190	150	1,340	305	280	330	330	147	36
2	977	66	50	190	150	1,250	275	275	265	275	102	34
3	665	62	50	170	170	1,110	270	270	202	202	64	33
4	530	62	50	170	170	1,020	260	305	138	123	56	32
5	413	60	54	170	190	850	250	358	96	76	48	30
6	305	58	198	150	260	738	245	413	93	68	42	28
7	255	60	174	150	380	595	235	470	88	123	38	27
8	235	62	470	150	1,000	1,300	222	530	82	630	35	25
9	198	62	413	150	1,900	500	214	500	82	330	33	22
10	178	62	385	150	4,000	470	206	850	82	413	31	21
11	158	58	358	150	6,220	413	198	3,650	82	235	88	20
12	147	58	385	150	6,690	385	186	2,000	88	129	80	20
13	141	58	560	150	6,070	385	166	892	76	86	47	18
14	132	72	700	150	5,140	385	198	595	56	64	210	18
15	129	72	630	150	3,090	630	210	470	40	60	138	19
16	126	66	560	150	2,000	775	162	385	90	56	102	22
17	120	64	530	150	1,490	738	141	470	68	60	76	19
18	117	62	935	150	1,110	700	123	413	174	60	47	22
19	114	60	1,110	150	977	700	135	280	154	52	44	38
20	114	58	977	150	850	700	470	218	99	48	52	42
21	108	60	800	150	738	665	560	178	72	230	66	47
22	102	76	650	150	813	595	500	158	68	194	102	41
23	99	80	500	140	1,020	500	440	194	102	135	86	38
24	90	74	440	140	977	413	413	2,110	170	129	82	33
25	84	72	380	140	850	385	385	3,510	154	120	72	31
26	82	68	340	120	1,300	385	358	2,330	111	120	62	28
27	78	64	300	120	1,340	413	330	1,250	88	114	54	28
28	76	62	280	120	1,250	470	280	738	74	108	48	29
29	74	58	240	140	-------	440	235	595	470	105	42	28
30	72	58	240	150	-------	385	206	500	413	96	41	30
31	70	-------	240	150	-------	330	-------	413	-------	99	40	-------

Note.—Discharge Dec. 21 to Feb. 10 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Oil Creek near Rouseville, Red Bank Creek at Saint Charles and Kiskiminities River at Avonmore

Monthly discharge of Mahoning Creek near Dayton, for the year ending September 30, 1925.

(Drainage area 322 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	1,790	70	251	0.780	0.90
November	80	58	64.1	.199	.22
December	1,110	50	421	1.31	1.51
January	190	120	150	.466	.54
February	6,690	150	1,800	5.59	5.82
March	1,340	330	644	2.00	2.31
April	560	123	273	.848	.95
May	3,650	158	826	2.57	2.96
June	470	40	137	425	.47
July	630	48	157	.488	.56
August	210	31	70.2	.218	.25
September	47	18	28.8	.089	.10
The Year	6,690	18	293	1.22	16.59

OHIO BASIN—STATION NO. 14

ALLEGHENY RIVER AT KITTANNING

Location.—At five-span steel highway bridge, Market Street, Kittanning, Armstrong County.

Drainage Area.—9,010 square miles.

Records Available.—August 18, 1904, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by C. L. Ivory and H. E. Reitler. Elevation of gage zero 764.45 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of gravel. Control is at a riffle about 500 feet downstream from the gage; probably permanent.

Extreme of Discharge.—Maximum stage during the year, 20.02 feet observed at 8 a. m. February 12 (discharge, 129,000 second-feet); minimum, estimated from Franklin record, 1.70 feet on September 6 (discharge, 1,200 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 800 and 250,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

Daily Mean Gage Height, in feet, of Allegheny River at Kittanning, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	16.45	2.35	2.26	9.04	7.32	10.08	6.66	4.81	3.96	-------	2.58	-------
2	14.68	2.10	2.24	8.87	7.52	8.69	6.53	5.71	3.91	-------	-------	-------
3	12.51	1.97	2.22	8.74	7.77	8.10	6.50	5.93	3.79	-------	-------	-------
4	10.77	2.08	2.22	8.62	7.92	7.22	6.43	6.06	3.71	-------	2.51	-------
5	8.94	2.07	2.29	8.44	8.10	6.52	5.53	6.29	3.26	-------	2.40	-------
6	7.58	2.00	2.34	8.36	8.37	6.50	5.46	6.56	2.47	2.53	2.38	-------
7	6.31	1.96	2.77	8.32	8.54	6.50	5.41	6.86	2.30	2.65	2.43	-------
8	5.28	2.10	3.17	8.07	8.54	6.86	5.33	6.59	2.22	2.63	2.64	-------
9	5.05	2.10	3.87	7.68	9.79	7.06	5.16	6.26	2.13	2.40	2.53	-------
10	4.81	2.14	4.64	7.37	14.84	7.73	5.03	6.06	2.09	2.39	2.35	-------
11	4.73	2.10	5.70	7.22	18.42	8.21	4.91	6.11	2.05	2.75	2.34	-------
12	4.21	2.28	5.47	7.04	19.29	8.39	4.56	-------	1.99	2.78	-------	-------
13	3.82	2.45	4.87	6.42	16.91	8.51	4.81	-------	1.93	2.61	3.15	-------
14	3.55	2.59	5.02	6.30	14.09	8.99	4.69	-------	1.94	2.31	2.71	-------
15	3.54	2.38	5.44	6.32	12.09	9.41	4.41	6.21	2.02	2.24	3.22	-------
16	3.39	2.36	4.87	6.47	11.25	9.81	4.69	-------	2.46	2.12	-------	-------
17	3.29	2.49	7.30	6.62	9.95	8.96	5.21	-------	2.50	2.17	-------	-------
18	-------	2.41	9.37	6.67	8.82	8.71	-------	-------	2.43	2.25	3.95	-------
19	-------	2.39	11.57	6.82	7.70	9.11	-------	5.83	2.33	2.38	-------	-------
20	2.87	2.34	15.18	7.00	7.07	9.76	-------	5.63	2.22	2.21	-------	-------
21	-------	2.46	14.48	7.12	6.32	9.56	6.73	5.53	2.19	2.21	2.48	-------
22	-------	2.60	11.16	6.92	7.52	8.81	6.36	5.46	2.16	2.34	2.34	-------
23	2.42	2.52	8.33	6.77	8.62	8.53	5.81	5.23	-------	2.62	2.31	-------
24	2.56	2.37	7.14	6.60	10.31	8.19	5.59	6.47	-------	2.18	-------	-------
25	2.58	2.34	6.34	6.54	11.68	7.93	-------	7.41	-------	1.89	-------	-------
26	2.59	2.29	5.52	6.70	12.48	7.41	-------	6.97	-------	1.98	-------	-------
27	2.69	2.36	4.77	6.77	11.14	6.89	-------	6.19	-------	1.91	-------	-------
28	2.48	2.36	4.82	6.62	9.63	6.99	4.41	5.46	-------	2.34	-------	-------
29	2.68	2.27	5.72	6.80	-------	7.19	-------	5.11	-------	2.06	-------	-------
30	2.49	2.31	6.92	7.04	-------	7.06	-------	5.01	-------	2.06	-------	-------
31	2.53	-------	8.22	7.24	-------	6.83	-------	4.06	-------	2.38	-------	-------

Note.—Gage heights Oct. 18, 19, 21, 22, Apr. 18-20, 25-27, 29, 30, May 12-14, 16-18, June 23 to July 5, Aug. 2, 3, 12, 16, 17, 19, 20 and Aug. 24 to Sept. 30 unsatisfactory. Stage-discharge relation Dec. 15 and Dec. 28 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of Allegheny River at Kittanning, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	90,800	2,160	2,000	4,400	4,000	39,300	17,300	8,380	5,840	5,000	2,640	
2	75,300	1,760	2,000	4,400	4,000	29,700	16,200	12,400	5,580	4,800	2,600	
3	56,800	1,530	1,920	4,000	4,000	25,800	16,800	13,300	5,340	4,000	2,600	
4	44,300	1,760	1,920	4,000	4,000	20,200	15,800	14,300	5,080	3,200	2,440	
5	31,000	1,680	2,080	4,000	4,000	16,200	11,400	15,300	4,160	2,800	2,260	
6	22,600	1,600	2,160	4,000	4,000	16,200	11,400	16,800	2,350	2,440	2,260	
7	15,300	1,530	3,060	3,800	6,500	16,200	11,000	18,400	2,080	2,640	2,350	
8	10,500	1,760	3,940	3,800	17,000	18,400	10,500	16,800	1,920	2,640	2,640	
9	9,200	1,760	5,580	3,800	37,200	19,600	10,100	15,300	1,840	2,260	2,440	
10	8,380	1,840	7,600	3,800	76,200	23,300	9,200	14,300	1,760	2,200	2,160	
11	7,980	1,760	12,400	3,800	111,000	26,400	8,780	14,300	1,680	3,060	2,160	
12	6,380	2,080	11,400	3,800	121,000	27,800	7,600	22,000	1,600	3,060	4,000	
13	5,340	2,350	8,780	3,800	95,600	28,400	8,380	20,000	1,530	2,640	3,940	
14	4,850	2,640	9,200	3,400	70,000	31,700	7,980	17,000	1,530	2,080	2,850	
15	4,620	2,260	9,000	3,400	53,800	34,400	6,960	14,800	1,600	2,000	3,940	3,130
16	4,390	2,160	8,780	3,400	47,100	37,200	7,980	13,000	2,350	1,760	7,500	
17	4,160	2,440	20,800	3,800	38,600	31,700	10,100	13,000	2,440	1,840	8,000	
18	4,000	2,260	34,400	3,800	30,400	29,700	10,000	13,300	2,350	2,000	5,840	
19	3,400	2,260	50,000	4,000	23,300	32,400	8,000	12,800	2,160	2,260	4,200	
20	3,270	2,160	79,700	4,000	19,600	37,200	9,500	11,900	1,920	1,920	3,000	
21	3,000	2,350	73,500	4,000	15,300	35,800	17,300	11,400	1,920	1,920	2,440	
22	2,800	2,640	47,100	4,000	22,000	30,400	15,800	11,400	1,840	2,160	2,160	
23	2,260	2,440	27,100	4,000	29,000	28,400	12,800	10,100	1,900	2,640	2,080	
24	2,640	2,160	19,600	3,800	40,700	26,400	11,900	16,200	2,000	1,920	2,000	
25	2,640	2,160	15,300	3,800	50,800	24,500	12,000	21,400	2,800	1,460	1,900	
26	2,640	2,080	11,400	3,800	56,800	21,400	10,000	19,000	3,000	1,600	1,800	
27	2,850	2,160	8,380	3,800	46,400	18,400	8,500	14,800	3,400	1,460	1,600	
28	2,440	2,160	6,500	3,800	35,800	19,000	6,960	11,400	3,800	2,160	1,500	
29	2,850	2,000	6,000	3,800	-------	20,200	6,000	9,640	4,400	1,680	1,400	
30	2,440	2,080	5,500	4,000	-------	19,600	6,000	9,200	5,500	1,680	1,300	
31	2,440	-------	4,800	4,000	-------	17,800	-------	6,100	-------	2,260	1,300	

Note.—Discharge estimated Oct. 18, 19, 21, 22, Apr. 18-20, 25-27, 29, 30, May 12-14, 16-18, June 23 to July 5, Aug. 2, 3, 12, 16, 17, 19, 20 and Aug. 24 to Sept. 30, because of unsatisfactory gage height record, from records for stations on Allegheny River at Franklin and Freeport, and Dec. 15 and Dec. 28 to Feb. 8, because of ice, from weather records, study of gage height graph and comparison with similar studies for Allegheny River at Franklin, Oil Creek near Rouseville and Shenango River at Sharon. Braced figures show mean discharge for the period included.

Monthly discharge of Allegheny River at Kittanning, for the year ending September 30, 1925

(Drainage area 9,010 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	90,800	2,260	14,200	1.58	1.82
November	2,640	1,530	2,070	.230	.26
December	79,700	1,920	16,200	1.80	2.08
January	4,400	3,400	3,870	.429	.49
February	121,000	4,000	38,100	4.23	4.40
March	39,300	16,200	25,900	2.87	3.31
April	17,300	6,000	10,700	1.19	1.33
May	22,000	6,100	14,100	1.56	1.80
June	5,840	1,530	2,860	.317	.35
July	6,000	1,460	2,470	2.74	.32
August	8,000	1,300	2,880	.320	.37
September (estimated)	8,400	1,200	3,130	.347	.39
The Year	121,000	1,200	11,200	1.24	16.92

OHIO BASIN—STATION NO. 15

CROOKED CREEK AT HILEMAN'S FARM

Location.—At single-span steel highway bridge, about three and one-half miles south of Ford City, at Hileman's Farm, Armstrong County.

Drainage Area.—279 square miles.

Records Available.—October 16, 1909, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by Miss Ola M. Beck.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Left bank is high and not subject to overflow; right is low and becomes inundated at a stage of about 8 feet. Bed is composed of gravel and rock. Control is at a riffle about 300 feet downstream from the gage; practically permanent.

Extremes of Discharge.—Maximum open-water stage during the year, 7.2 feet at 6 a. m. February 10 (discharge, 5,400 second-feet); a stage of 14.5 feet was reached at noon February 8, but the water was held back by an ice jam; minimum, 0.52 foot at 8.30 a. m. September 13 (discharge, 1.5 second-feet).

Ice.— Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 500 second-feet and fairly well defined between 500 and 5,500 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

Daily Mean Gage Height, in feet, of Crooked Creek at Hileman's Farm for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5.26	1.18	1.18	2.11	3.32	3.13	2.18	2.68	1.49	1.62	1.46	0.73
2	3.86	1.21	1.24	2.01	3.72	3.20	2.29	2.90	1.44	1.39	1.53	.72
3	3.16	1.21	1.19	1.91	5.39	3.10	2.45	2.74	1.37	1.26	1.43	.94
4	2.77	1.23	1.18	1.78	6.03	2.78	2.28	2.56	1.31	1.27	1.58	.76
5	2.50	1.16	1.54	1.99	4.89	2.71	2.19	2.54	1.27	1.38	1.40	.73
6	2.34	1.13	2.24	1.96	4.61	2.64	2.05	2.54	1.28	1.33	1.25	.62
7	2.18	1.15	2.15	1.96	6.00	2.62	1.95	2.51	1.30	1.43	1.16	.70
8	2.13	1.12	2.28	1.93	12.18	2.59	1.94	2.42	1.32	2.46	1.38	.69
9	2.04	1.07	2.44	1.95	6.62	2.52	1.83	2.25	1.45	2.51	1.26	.70
10	1.88	1.11	2.23	1.90	6.66	2.49	1.82	2.57	1.24	2.31	1.08	.74
11	1.82	1.07	2.08	1.94	5.45	2.38	1.88	5.25	1.12	2.80	1.03	.71
12	1.72	1.04	1.82	1.85	5.46	2.52	1.88	4.80	1.04	2.21	.96	.59
13	1.69	1.09	2.25	1.76	4.34	2.48	1.75	3.70	1.01	1.77	1.85	.56
14	1.62	1.22	3.00	1.84	3.55	2.48	1.75	3.15	.94	1.45	1.58	.68
15	1.57	1.35	2.58	1.76	3.42	2.46	1.81	2.69	1.00	1.29	1.44	.78
16	1.55	1.37	2.58	1.88	3.60	2.55	1.85	2.48	1.42	1.27	1.31	.75
17	1.51	1.27	3.20	2.44	3.35	2.66	1.79	2.38	1.62	1.38	1.16	1.15
18	1.46	1.12	4.39	4.30	3.07	3.10	1.64	2.28	1.40	1.38	.98	1.19
19	1.39	1.05	3.86	3.90	2.78	3.52	1.65	2.19	1.29	1.26	.95	1.00
20	1.34	1.09	3.56	3.82	2.75	3.47	1.72	2.06	1.15	1.21	.95	.94
21	1.36	1.06	3.04	3.45	2.65	3.12	1.62	1.94	.97	1.14	1.17	1.21
22	1.33	1.18	2.52	3.25	2.80	2.85	1.65	1.98	.89	2.77	1.24	.95
23	1.34	1.22	2.44	3.13	3.08	2.67	1.78	1.79	.88	3.34	1.14	.79
24	1.28	1.30	2.58	2.78	3.24	2.54	2.30	2.25	.87	2.28	1.09	.91
25	1.29	1.30	2.46	2.58	3.08	2.46	2.10	2.98	1.25	2.06	.99	.88
26	1.31	1.19	2.46	2.77	3.97	2.32	2.30	2.35	1.80	1.95	.89	.79
27	1.26	1.21	2.46	3.86	4.34	2.35	1.94	1.93	1.68	1.78	1.43	.85
28	1.23	1.18	2.41	4.18	3.55	2.62	2.00	1.85	1.30	1.67	1.15	.74
29	1.22	1.20	2.15	4.10	-------	2.44	1.95	1.72	1.46	1.58	.86	.66
30	1.17	1.19	1.98	3.88	-------	2.29	2.08	1.66	1.85	1.40	.73	.69
31	1.19	-------	1.94	3.50	-------	2.22	-------	1.55	-------	1.38	.73	-------

Note.—Stage-discharge relation Dec. 23-29, Jan. 1-12, 14 and Jan. 16 to Feb. 8 affected by ice.

Daily discharge in second-feet, of Crooked Creek at Hileman's Farm, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	2,840	19	19	120	110	815	217	510	45	62	42	3.8
2	1,430	21	23	110	110	850	270	640	39	34	50	3.6
3	815	21	20	110	110	780	360	540	33	24	38	8.8
4	540	22	19	110	120	570	265	420	28	25	56	4.3
5	390	18	51	110	180	510	221	420	25	33	35	3.8
6	297	16	245	100	550	480	168	420	26	29	24	2.3
7	217	18	205	100	1,600	450	135	390	27	38	18	3.3
8	197	16	265	100	2,600	450	132	342	29	366	33	3.2
9	164	14	354	95	4,500	390	102	250	40	390	24	3.3
10	115	16	240	95	4,650	384	100	420	23	280	14	4.0
11	100	14	178	95	2,950	319	115	2,730	16	570	12	3.5
12	79	13	100	90	3,070	390	115	2,290	13	230	9.5	2.0
13	73	15	250	87	1,790	378	85	1,250	11	89	108	1.8
14	62	21	710	85	1,170	378	85	815	8.8	40	56	3.0
15	55	31	450	87	1,010	366	98	510	11	26	39	4.7
16	52	33	450	90	1,170	420	108	378	37	25	28	4.1
17	47	25	850	90	970	480	93	319	62	33	18	18
18	42	16	1,890	95	745	780	65	265	35	33	10	20
19	34	13	1,430	95	570	1,090	67	221	26	24	9.2	11
20	30	15	1,170	95	540	1,050	79	171	18	21	9.2	8.8
21	32	13	745	95	480	780	62	132	9.9	17	18	21
22	29	19	390	100	570	605	67	144	7.3	540	23	9.2
23	30	21	300	110	780	480	91	93	7.0	970	17	4.9
24	26	27	280	110	890	420	275	250	6.8	265	15	7.9
25	26	27	240	110	780	366	185	710	24	171	11	7.0
26	28	20	220	110	1,520	286	275	302	95	135	7.3	4.9
27	24	21	180	110	1,790	302	132	129	72	91	38	6.2
28	22	19	170	110	1,170	450	150	108	27	70	18	4.0
29	21	20	150	110	-------	354	135	79	42	56	6.5	2.8
30	18	20	144	110	-------	245	178	69	108	35	3.8	3.2
31	20	-------	132	110	-------	235	-------	52	-------	33	3.8	-------

Note.—Discharge Dec. 23-29, Jan. 1-12, 14 and Jan. 16 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Kiskiminitas River at Avonmore, Oil Creek near Rouseville and Red Bank Creek at Saint Charles

Monthly discharge of Crooked Creek at Hileman's Farm, for the year ending September 30, 1925.

(Drainage area 279 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	2,840	18	253	0.907	1.05
November	33	13	19.5	.070	.08
December	1,890	19	383	1.37	1.58
January	120	85	101	.362	.42
February	4,650	110	1,300	4.66	4.85
March	1,090	235	511	1.83	2.11
April	275	62	148	.530	.59
May	2,730	52	496	1.78	2.05
June	108	6.8	31.7	.114	.13
July	970	17	153	.548	.63
August	108	3.8	25.6	.092	.11
September	21	1.8	6.28	.023	.03
The Year	4,650	1.8	280	1.00	13.63

OHIO BASIN—STATION NO. 16

STONY CREEK AT JOHNSTOWN

Location.—At single-span steel highway bridge, Poplar Street, Johnstown, Cambria County, about one and one-half miles above the confluence of Stony Creek and the Little Conemaugh River.

Drainage Area.—468 square miles.

Records Available.—July 2, 1913, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Edmund F. Miller. Elevation of gage zero 1,154.0 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Banks are high and not subject to overflow. Control for low water is at a riffle, where the bed is composed of gravel and small boulders, about 100 feet downstream from the gage; practically permanent. Control for high stages is at a riffle, where the bed is composed of gravel and large boulders, about 1,300 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 10.0 feet at midnight February 11-12 (discharge, 9,450 second-feet); minimum, 0.87 foot at 4.45 p. m. September 25 (discharge, 24 second-feet).

Ice.—Stage-discharge relation usually affected by ice for short periods.

Diversions.—A dam one mile upstream from the mouth of Quemahoning Creek creates a reservoir having a capacity of 1,740,000,000 cubic feet, from which water is carried through a conduit to the Cambria Plant of the Bethlehem Steel Company at Johnstown, and returned to the stream below the gaging station.

Accuracy.—Stage-discharge relation probably permanent except when affected by ice. Rating curve fairly well defined below 1,000 second-feet and well defined from 1,000 to 8,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

Cooperation.—A record of the quantity of water diverted from the Quemahoning Reservoir is furnished by the Bethlehem Steel Company, Johnstown, Pa.

The following discharge measurement was made by H. J. McIntyre: No. 48, October 18: Gage height, 1.48 feet; discharge, 123 second-feet.

Daily Mean Gage Height, in feet, of Stony Creek at Johnstown, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.99	1.34	1.88	1.92	2.06	2.87	2.43	3.11	1.93	1.33	1.73	0.90
2	3.12	1.33	1.90	1.92	2.20	3.45	2.48	3.68	1.86	1.27	1.59	.89
3	2.67	1.31	1.88	1.90	2.30	2.87	2.79	3.27	1.80	1.27	1.39	.94
4	2.36	1.30	1.88	1.60	2.36	2.79	2.67	3.00	1.71	1.37	1.35	.92
5	2.13	1.25	1.90	1.51	2.43	2.77	2.51	2.92	1.67	1.43	1.31	.92
6	2.06	1.24	2.33	1.50	2.64	2.61	2.39	2.80	1.60	1.29	1.25	.92
7	1.99	1.26	2.30	1.50	3.40	2.97	2.29	2.70	1.57	1.22	1.26	.92
8	1.77	1.19	2.28	1.47	4.25	3.00	2.21	2.56	1.60	1.26	1.25	.92
9	1.76	1.16	2.25	1.55	4.85	3.00	2.09	2.41	2.03	1.25	1.18	.90
10	1.69	1.20	2.24	1.58	6.00	2.83	2.12	3.14	1.72	1.61	1.20	.90
11	1.64	1.22	2.29	1.52	7.60	2.65	2.22	7.60	1.55	1.68	1.14	.90
12	1.59	1.24	2.54	2.22	7.75	3.52	2.17	6.91	1.50	1.51	1.16	.90
13	1.55	1.20	2.72	2.27	5.35	3.19	2.03	5.07	1.47	1.32	1.19	.96
14	1.51	1.70	2.88	2.30	4.52	3.03	1.95	4.21	1.46	1.26	1.26	.96
15	1.49	1.50	2.84	2.31	4.35	2.95		3.68	1.41	1.13	1.22	.98
16	1.46	1.50	2.84	2.28	4.27	2.71		3.24	1.54	1.13	1.14	.93
17	1.42	1.30	2.84	2.30	3.85	2.69		3.81	1.59	1.13	1.16	.92
18	1.34	1.28	2.83	2.74	3.36	2.77		3.54	1.51	1.17	1.19	.91
19	1.42	1.16	2.82	2.15	3.21	3.52		3.04	1.44	1.12	1.23	.92
20	1.38	1.14	2.85	2.38	3.06	3.42		2.76	1.39	1.15	1.14	.91
21	1.41	1.17	2.79	2.39	2.81	3.03		2.58	1.37	2.02	1.24	1.14
22	1.40	1.26	2.70	2.26	2.96	2.84		2.71	1.33	4.31	1.25	1.05
23	1.40	1.27	1.87	2.28	3.20	2.67	2.21	2.64	1.35	3.02	1.19	.92
24	1.32	1.34	1.74	2.32	3.26	2.54	2.41	2.91	1.47	2.09	1.09	.90
25	1.23	1.34	1.65	2.29	3.24	2.43	2.14	3.56	2.28	1.73	1.05	.90
26	1.28	1.36	1.78	2.27	2.78	2.37	2.00	3.10	1.90	1.61	.98	.89
27	1.32	1.24	1.83	2.26	2.40	2.35	1.94	2.68	1.58	1.55	.94	.90
28	1.32	1.25	1.99	2.28	2.52	2.63	1.96	2.50	1.53	1.45	.94	.95
29	1.33	1.30	2.24	2.31	-------	2.47	2.37	2.32	1.47	1.45	.90	.92
30	1.31	1.35	2.24	2.24	-------	2.33	2.48	2.14	1.41	1.38	.92	.91
31	1.26	-------	2.20	2.18	-------	2.43	-------	2.04	-------	1.50	.96	-------

Note.—Stage-discharge relation Dec. 1-4, 15-18, 21, 22, Dec. 26 to Jan. 3, Jan. 12-16 and Jan. 20 to Feb. 7 affected by ice. Gage heights Apr. 15-22 not observed.

Daily discharge, in second-feet, of Stony Creek at Johnstown, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,600	129	126	180	220	810	572	935	350	126	271	27
2	935	126	100	180	200	1,140	595	1,360	310	108	217	26
3	695	129	95	180	200	810	750	1,070	290	108	147	33
4	528	117	150	217	180	750	695	870	252	138	132	30
5	438	102	330	182	180	750	595	810	234	158	117	30
6	392	99	528	182	280	645	550	750	217	114	102	30
7	370	105	505	182	750	870	505	695	200	93	105	39
8	271	84	505	164	1,760	870	460	645	217	105	102	30
9	271	77	482	200	2,280	870	415	550	392	102	82	27
10	252	87	482	217	3,490	750	415	935	252	217	87	27
11	234	93	505	182	5,510	645	460	5,510	200	252	72	27
12	217	99	595	180	5,790	1,210	438	4,590	182	182	77	27
13	200	87	695	180	2,860	1,000	392	2,560	172	123	84	36
14	182	252	810	180	2,010	870	350	1,760	168	105	105	36
15	178	182	650	180	1,920	870	480	1,360	150	70	93	39
16	168	182	550	220	1,840	695	460	1,000	200	70	72	32
17	154	117	550	505	1,440	695	400	1,440	217	70	77	30
18	129	111	650	695	1,140	750	420	1,210	182	80	84	28
19	154	77	750	438	1,000	1,210	440	870	164	67	96	30
20	141	72	750	300	935	1,140	500	750	144	74	72	28
21	150	80	550	240	750	870	460	645	138	370	99	72
22	147	105	400	200	870	750	440	695	126	1,840	102	52
23	147	108	316	180	1,000	695	460	645	132	870	84	30
24	123	129	271	180	1,070	595	550	810	172	415	60	27
25	96	129	234	180	1,000	572	438	1,280	505	271	52	27
26	111	135	220	180	750	550	370	935	330	217	99	26
27	123	99	220	180	550	528	350	695	217	200	33	27
28	123	102	200	220	595	645	350	595	200	164	33	34
29	126	117	200	220	-------	572	528	505	172	164	27	30
30	120	132	180	220	-------	528	595	415	150	141	30	28
31	105	-------	180	220	-------	572	-------	392	-------	182	36	-------

Note.—Discharge does not include water diverted from Quemahoning Reservoir. Discharge estimated, Dec. 1-4, 15-18, 21, 22, Dec. 26 to Jan. 3, Jan. 12-16 and Jan. 20 to Feb. 7, because of ice, from weather records, study of gage height graph and comparison with similar studies for Kiskiminitas River at Avonmore, and Apr. 15-22, because of no gage height record, from Weather Bureau gage height record at Johnstown and discharge of Casselman River at Markleton.

Monthly discharge of Stony Creek at Johnstown, for the year ending September 30, 1925.

(Drainage area 468 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	1,600	96	286	0.857	0.99
November	252	72	115	.481	.54
December	810	95	412	1.11	1.28
January	695	164	231	.675	.78
February	5,790	180	1,450	3.29	3.43
March	1,210	528	782	1.91	2.20
April	750	350	481	1.26	1.41
May	5,510	392	1,200	2.80	3.23
June	505	126	221	.690	.77
July	1,840	67	232	.705	.81
August	271	27	90.0	.400	.46
September	72	26	31.9	.259	.29
The Year	5,790	26	456	1.19	16.19

Note.—Discharge does not include the water diverted from the Quemahoning Reservoir. Run-off includes the quantity of water diverted.

OHIO BASIN—STATION NO. 17

BLACKLICK CREEK AT BLACKLICK

Location.—At three-span steel highway bridge on road to Gratton, about one-quarter of a mile north of the Pennsylvania Railroad Station, Blacklick, Indiana County.

Drainage Area.—386 square miles.

Records Available.—August 16, 1904, to December 31, 1905, and January 8, 1907, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by Miss Carrie Kelly.

Discharge Measurements.—Made from upstream side of bridge or by wading.

Channel and Control.—Right bank is high and not subject to inundation; left begins to overflow at a stage of about 12.0 feet. Bed is composed of sand, gravel and boulders. Control is at a riffle about 200 feet downstream from the gage; may shift occasionally.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 7.2 feet at 2 a. m. February 11(discharge, 5,900 second-feet); minimum, 2.16 feet from 7 a. m. September 10 to 7 a. m. September 11 (discharge, 36 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined below 10,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

Daily Mean Gage Height, in feet, of Blacklick Creek at Blacklick, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.25	2.33	2.51	3.90	5.15	3.75	3.20	4.08	2.66	2.55	2.70	2.21
2	3.75	2.30	2.49	3.80	5.30	3.80	3.40	4.00	2.24	2.40	2.60	2.21
3	3.45	2.37	2.50	3.85	5.10	3.65	3.31	3.82	2.53	2.31	2.60	2.20
4	3.15	2.30	2.65	3.70	4.90	3.60	3.26	3.75	2.49	2.35	2.56	2.23
5	3.10	2.31	2.67	3.65	4.45	3.45	3.23	4.00	2.45	2.90	2.52	2.20
6	3.04	2.27	2.63	3.70	4.35	3.45	3.21	3.90	2.49	2.66	2.43	2.21
7	2.92	2.30	2.66	3.75	4.40	3.30	3.16	3.65	2.51	2.61	2.37	2.20
8	2.82	2.29	2.63	3.70	5.45	3.40	2.90	3.55	2.43	2.50	2.25	2.22
9	2.75	2.25	2.90	3.60	6.45	3.45	2.93	3.40	2.42	2.47	2.38	2.18
10	2.70	2.26	3.11	3.70	6.35	3.50	2.97	3.36	2.20	2.40	2.40	2.16
11	2.68	2.27	3.21	3.75	6.85	3.60	2.77	6.01	2.23	2.45	2.35	2.17
12	2.63	2.24	3.25	3.70	5.75	3.65	2.74	5.30	2.27	2.44	2.45	2.20
13	2.57	2.27	3.26	3.85	5.40	3.70	2.75	4.40	2.30	2.42	2.60	2.30
14	2.52	2.55	3.25	3.80	4.45	3.55	2.73	4.00	2.31	2.40	3.25	2.35
15	2.53	2.65	3.25	3.75	4.60	3.65	2.72	3.75	2.30	2.37	2.85	2.33
16	2.49	2.59	3.27	3.95	4.15	3.75	2.73	3.50	2.75	2.38	2.45	2.55
17	2.40	2.40	4.05	4.05	4.00	3.85	2.74	3.90	2.45	2.55	2.35	2.38
18	2.41	2.27	4.91	4.25	3.85	3.85	2.77	3.45	2.30	2.45	2.55	2.34
19	2.41	2.33	4.45	4.40	3.80	4.05	3.05	3.27	2.35	2.30	3.05	2.31
20	2.43	2.36	4.15	4.35	3.75	3.95	3.07	3.11	2.35	2.27	2.80	2.30
21	2.47	2.47	4.15	4.40	3.55	3.70	3.04	2.95	2.28	2.35	2.69	2.40
22	2.41	2.45	4.20	4.25	4.35	3.35	3.05	2.90	2.25	3.95	2.50	2.40
23	2.41	2.38	4.05	4.10	4.15	3.21	3.41	2.96	2.30	4.00	2.44	2.32
24	2.38	2.37	3.85	4.10	3.90	3.22	3.16	4.34	2.65	3.40	2.35	2.32
25	2.35	2.34	3.90	4.10	3.75	3.19	2.95	4.00	2.45	3.10	2.55	2.19
26	2.33	2.35	3.95	4.00	3.70	3.12	2.75	3.85	2.65	3.01	2.45	2.21
27	2.34	2.31	3.95	4.10	3.55	3.60	3.03	3.50	2.71	3.01	2.39	2.18
28	2.35	2.36	4.00	4.20	3.45	3.80	3.03	3.17	2.72	2.75	2.36	2.21
29	2.31	2.32	3.95	4.35	-------	3.55	3.14	3.11	2.82	2.77	2.29	2.19
30	2.41	2.39	3.90	4.60	-------	3.20	3.27	3.03	2.95	2.70	2.21	2.18
31	2.34	-------	3.95	5.05	-------	3.25	-------	2.74	-------	2.73	2.20	-------

Note.—Stage-discharge relation Dec. 1-3 and Dec. 21 to Feb. 9 affected by ice.

Daily discharge, in second-feet, of Blacklick Creek at Blacklick, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,160	71	75	160	180	798	445	1,070	184	142	260	44
2	798	79	65	140	180	835	560	990	50	90	160	44
3	592	82	90	140	170	725	500	835	126	66	160	42
4	418	63	180	140	160	690	472	798	122	77	146	48
5	390	66	188	140	160	592	472	990	108	290	132	42
6	365	57	172	160	200	592	445	910	122	184	100	44
7	300	63	184	160	400	500	418	725	125	164	82	42
8	254	61	172	160	1,000	560	290	658	100	125	52	46
9	222	52	290	140	2,000	592	305	560	97	114	85	59
10	200	55	290	140	4,260	625	325	530	42	90	90	36
11	192	57	445	160	5,060	690	232	3,510	48	108	77	38
12	172	50	472	140	3,160	725	218	2,380	57	104	108	42
13	150	57	472	160	2,520	760	222	1,330	63	94	160	63
14	132	142	472	160	1,330	658	214	990	66	90	472	77
15	136	180	472	140	1,520	725	209	798	63	82	268	71
16	122	156	472	160	1,160	798	214	625	222	85	108	142
17	96	90	1,030	200	990	872	218	910	108	142	77	85
18	94	57	1,840	260	872	872	232	592	63	108	142	74
19	94	71	1,330	340	835	1,030	365	472	77	63	365	66
20	100	79	1,160	300	798	950	365	390	77	57	245	63
21	114	114	850	240	658	760	365	315	59	77	196	90
22	94	108	650	200	1,330	530	365	290	52	950	125	94
23	94	85	550	160	1,160	445	560	320	63	1,520	104	68
24	85	82	420	160	910	445	418	1,240	180	560	77	68
25	77	74	340	140	798	445	315	990	108	390	142	40
26	71	77	300	140	760	390	222	872	180	340	108	44
27	74	66	240	130	658	690	365	625	204	340	87	39
28	77	79	200	130	592	835	365	418	209	222	79	44
29	66	68	180	140	-------	658	418	390	254	232	61	40
30	94	87	160	150	-------	445	472	365	315	200	44	39
31	74	-------	160	160	-------	472	-------	218	-------	214	42	-------

Note.—Discharge Dec. 1-3 and Dec. 21 to Feb. 9 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Kiskiminitas River at Avonmore, Clarion River near Piney, Chartiers Creek at Carnegie and Shenango River at Sharon.

Monthly discharge of Blacklick Creek at Blacklick, for the year ending September 30, 1925.

(Drainage area 386 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	1,160	66	223	0.578	0.67
November,	180	50	80.9	.210	.23
December,	1,840	65	452	1.17	1.35
January,	340	130	169	.438	.50
February,	5,060	160	1,210	3.13	3.26
March,	1,030	390	668	1.73	1.99
April,	500	209	353	.915	1.02
May,	3,510	218	842	2.18	2.51
June,	315	42	118	.306	.34
July,	1,520	57	236	.611	.70
August,	472	42	139	.360	.42
September,	142	36	57.1	.148	.17
The Year,	5,060	36	375	.972	13.16

OHIO BASIN—STATION NO. 18

KISKIMINITAS RIVER AT AVONMORE

Location.— At four-span steel highway bridge, Avonmore, Westmoreland County.

Drainage Area.—1,720 square miles.

Records Available.—May 29, 1907, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by J. H. Shupe. Elevation of gage zero 805.64 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Right bank is high and not subject to overflow; left is low and overflows at high stages. Bed is composed of gravel. Control is at the first of a series of riffles about 500 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 17.8 feet at 6 a. m. February 12 (discharge, 29,200 second-feet); minimum, 2.51 feet at 8.45 a. m. September 1 (discharge, 330 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined below 30,000 second-feet. Gage read to hundredths twice daily; during high stages more frequently. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

Daily Mean Gage Height, in feet, of Kiskiminitas River at Avonmore, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.66	3.12	4.02	6.91	7.37	6.12	4.98	5.57	4.04	3.46	3.48	2.56
2	7.28	3.14	3.82	6.64	8.11	7.10	5.23	7.35	4.90	3.16	3.65	2.65
3	6.06	3.11	3.72	6.46	10.82	7.44	5.75	6.77	3.77	3.03	3.40	2.68
4	5.30	3.10	3.82	6.36	9.47	8.79	5.63	6.14	3.67	2.94	3.38	2.69
5	4.80	3.07	3.52	6.21	8.67	6.90	5.41	6.22	3.54	3.46	3.20	2.65
6	4.40	3.07	4.37	6.11	9.04	5.46	5.08	6.10	3.43	3.39	3.18	2.61
7	4.23	3.01	4.76	6.01	10.89	5.44	4.85	5.80	3.33	3.23	3.28	2.58
8	4.06	3.05	4.68	5.88	10.35	5.64	4.71	5.62	3.26	3.26	3.12	2.56
9	3.93	3.03	5.16	5.96	11.68	5.72	4.48	5.24	3.31	3.21	3.03	2.58
10	3.78	3.01	4.71	5.74	14.11	5.49	4.41	5.02	3.41	3.38	2.96	2.58
11	3.68	2.97	4.24	5.61	13.24	5.36	4.51	8.78	3.26	4.30	2.94	2.54
12	3.58	2.99	4.01	5.54	16.14	6.69	4.45	13.02	3.13	3.70	3.06	2.53
13	3.48	3.01	4.74	5.56	11.43	6.82	4.25	9.63	3.09	3.38	3.01	2.53
14	3.48	3.39	6.01	5.48	9.26	6.34	4.13	8.04	3.06	3.22	3.70	2.66
15	3.40	3.67	5.11	5.17	8.27	6.62	4.33	7.04	2.96	3.06	3.68	2.84
16	3.38	3.47	4.56	5.27	8.94	6.04	4.81	6.20	3.29	3.05	3.18	2.93
17	3.38	3.17	5.46	6.90	7.93	5.84	4.48	6.34	3.43	3.20	2.96	2.96
18	3.33	3.13	8.06	8.37	7.15	6.22	4.35	6.64	3.29	3.06	2.93	2.80
19	3.28	3.07	7.41	8.09	6.44	6.76	4.21	5.72	3.16	2.91	2.85	2.67
20	3.23	3.03	6.46	7.63	6.09	7.22	4.53	5.24	3.08	2.78	3.34	2.64
21	3.23	3.05	5.41	7.17	5.74	6.44	4.48	4.92	2.97	2.92	3.24	2.73
22	3.23	3.11	4.48	7.10	5.72	5.99	4.18	4.87	2.85	8.92	3.34	3.07
23	3.18	3.15	5.31	6.90	6.09	5.59	4.18	4.82	2.95	7.99	3.09	2.86
24	3.18	3.17	5.81	6.60	6.54	5.29	4.83	5.08	2.94	5.50	2.85	2.74
25	3.16	3.27	6.11	6.47	6.26	5.03	4.58	6.90	3.26	4.45	2.79	2.65
26	3.14	3.17	7.51	6.80	6.84	4.85	4.41	6.16	4.16	4.12	2.82	2.58
27	3.12	3.13	7.58	8.45	6.99	4.88	4.25	5.47	3.63	3.90	2.80	2.58
28	3.14	3.07	7.51	8.07	6.04	5.88	4.15	5.02	3.21	3.42	2.75	2.63
29	3.14	3.07	7.14	7.56		5.48	4.38	4.72	3.23	3.60	2.71	2.55
30	3.14	3.20	7.06	7.53		5.18	4.58	4.47	3.56	3.42	2.67	2.58
31	3.12		7.11	7.53		5.03		4.20		3.35	2.58	

Note.—Stage-discharge relation Dec. 1-5, Dec. 23 to Feb. 7 and Feb. 26 to Mar. 2 affected by ice.

Daily discharge, in second-feet, of Kiskiminitas River at Avonmore, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8,630	665	750	750	650	2,600	2,250	2,920	1,320	910	945	352
2	5,010	700	650	750	650	3,800	2,460	5,140	2,150	700	1,020	400
3	3,500	665	650	750	650	5,140	3,140	4,360	1,160	632	875	425
4	2,580	665	600	750	650	7,160	2,920	3,500	1,090	570	875	425
5	2,050	632	750	650	650	4,490	2,680	3,620	945	910	735	400
6	1,680	632	1,680	650	2,000	2,800	2,360	3,500	910	875	735	375
7	1,500	600	2,050	650	3,000	2,680	2,650	3,140	840	770	805	375
8	1,410	632	1,960	650	9,930	2,920	1,966	2,920	770	770	665	352
9	1,240	642	2,460	650	12,600	3,030	1,770	2,460	805	735	632	375
10	1,160	600	1,960	650	18,400	2,800	1,680	2,250	875	875	570	375
11	1,090	570	1,500	650	16,200	2,680	1,770	7,160	770	1,590	570	352
12	1,020	600	1,320	650	24,000	4,240	1,680	15,700	700	1,090	632	352
13	945	600	1,960	650	12,000	4,360	1,500	8,460	665	875	600	352
14	945	875	3,380	650	7,950	3,740	1,410	5,960	632	735	1,090	400
15	875	1,090	2,360	700	6,410	4,120	1,590	4,620	570	632	1,090	510
16	875	910	1,860	750	7,310	3,380	2,050	3,620	805	632	735	570
17	875	700	2,800	1,100	5,820	3,140	1,770	3,740	910	735	570	570
18	840	700	6,110	1,600	4,880	3,620	1,680	4,120	805	632	570	480
19	805	632	5,140	1,400	3,860	4,360	1,500	3,030	700	540	510	400
20	770	632	3,990	1,100	3,500	4,880	1,770	2,460	665	480	840	400
21	770	632	2,680	900	3,030	3,860	1,770	2,150	570	510	770	452
22	770	665	1,770	800	3,030	3,380	1,500	2,150	510	7,310	840	632
23	735	700	1,300	750	3,500	2,920	1,500	2,050	570	5,960	665	510
24	735	700	1,200	650	3,990	2,580	2,050	2,360	570	2,800	510	452
25	700	770	1,000	650	3,740	2,250	1,860	4,490	770	1,680	480	400
26	700	700	950	650	3,200	2,050	1,680	3,620	1,500	1,410	480	375
27	665	700	900	700	2,600	2,150	1,500	2,800	1,020	1,240	480	375
28	700	632	850	750	2,400	3,260	1,500	2,250	735	875	452	400
29	700	632	800	750		2,800	1,680	1,960	770	1,020	425	352
30	700	735	800	750	-------	2,460	1,860	1,770	1,020	875	400	375
31	665	-------	750	700	-------	2,250	-------	1,500	-------	840	375	-------

Note.—Discharge Dec. 1-5, Dec. 23 to Feb. 7 and Feb. 26 to Mar. 2 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Allegheny River at Franklin and Chartiers Creek at Carnegie.

Monthly discharge of Kiskiminitas River at Avonmore, for the year ending September 30, 1925.

(Drainage area 1,720 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	per square mile Second-feet	Depth in inches
October	8,630	665	1,470	0.855	0.99
November	1,090	570	687	.399	.45
December	6,110	600	1,840	1.07	1.23
January	1,600	650	781	.454	.52
February	24,000	650	5,950	3.46	3.60
March	7,160	2,050	3,420	1.99	2.29
April	3,140	1,410	1,900	1.10	1.23
May	15,700	1,500	3,860	2.24	2.58
June	2,150	510	871	.506	.56
July	7,310	480	1,300	.756	.87
August	1,090	375	676	.393	.45
September	632	352	419	.244	.27
The Year	24,000	352	1,910	1.11	15.04

OHIO BASIN—STATION NO. 19

KISKIMINITAS RIVER AT VANDERGRIFT

Location.—At pumping station of the American Sheet and Tin Plate Company, about 300 feet downstream from the Pennsylvania Railroad Station, Vandergrift, Westmoreland County.

Drainage Area.—1,830 square miles.

Records Available.—November 1, 1915, to September 30, 1925.

Gage.—A float type gage is installed in the pumping station. The float operates in a 3-inch pipe inserted in the pump house well, which is fed by gravity from the river. Gage heights are indicated on a vertical staff inside the pumping station; read to inches twice daily by pump house engineer; during high stages more frequently. Elevation of gage zero 767.14 feet, United States Geological Survey datum.

Channel and Control.—Banks are high and not subject to overflow. Bed is composed of gravel and rock.

Extremes of Stage.—Maximum gage height during the year, estimated from hydrograph, 17.3 feet at 1 p. m. February 12; minimum 3.25 feet several days in September.

Ice.—Stage-discharge relation usually affected by ice.

Cooperation.—Record furnished by the American Sheet and Tin Plate Company, Vandergrift, Pa.

Daily Mean Gage Height, in feet, of Kiskiminitas River at Vandergrift, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	10.45	3.67	3.58	5.38	5.67	7.33	6.00		5.08	4.35	4.33	3.33
2	8.16	3.67	3.54	5.00	6.18	7.16	5.96		4.92	3.92	4.34	3.25
3	7.05	3.67	3.54	5.17	8.83	6.96	6.20	7.50	4.83	3.67	4.38	3.25
4	6.54	3.67	3.62	4.62	8.25	7.88	6.33	6.70	4.67	3.67	4.33	3.25
5	6.08	3.75	3.75	4.54	7.92	7.04	6.17		4.54		4.00	3.25
6	5.75	3.83	4.84	4.58	7.56	6.75	6.09		4.50		4.00	3.25
7	5.42	3.83	5.10	4.70	8.60	6.50	5.79		4.42	4.00	4.00	3.42
8	5.30	3.67	5.05	4.83	9.92	6.50	5.54	6.17	4.29	4.17	4.17	3.33
9	5.12	3.67	5.84	4.67	11.84	6.25	5.46	5.92	4.29	4.00	4.00	3.33
10	4.92	3.67	5.84	4.00	14.06	6.29	5.29	5.66	4.17	4.16	3.67	3.33
11	4.67	3.67	5.33	4.00	13.66	6.12	5.21	7.64	4.17	4.54	3.67	3.29
12	4.58	3.50	4.95	4.00	15.93	5.88	5.08	13.57	4.17	5.30	3.62	3.25
13	4.58	3.50		4.17	12.12	7.35	5.04	10.50	4.08	4.62	3.50	3.25
14	4.46	3.71	6.90	4.17	10.16	6.88	4.79	9.00	4.00	4.42	3.66	3.25
15	4.42	4.17	6.16	4.00	8.85	6.50		8.08	3.92	4.21	3.92	3.38
16	4.16	4.38	5.49	4.08	9.42	6.50	5.55	7.34	3.83	3.92	3.83	3.68
17	4.00	4.16	6.75	5.50	8.67	6.46	5.29	6.96	3.83	3.83	3.88	3.67
18	4.00	3.83	9.05	7.70	7.92	6.38	4.95	7.21	3.83	3.83	3.75	3.67
19	3.92		8.08	7.50	7.34	6.96	4.84	6.92	3.83	3.54	3.62	3.50
20	3.85	3.50	7.20		7.04	6.83	4.75	6.50	3.83	3.58	4.00	3.50
21		3.50	6.00	5.90	6.83	6.92	4.92	6.10	3.75	3.58	4.29	3.50
22		3.50	5.66	5.50	6.33	7.00	5.00	6.00	3.62	9.33	4.33	3.42
23		3.67	5.00	5.42	6.33	6.17	4.83	5.92	3.50	9.39	4.25	3.42
24		3.67	5.00	5.21	6.42	6.12	5.38	6.00	3.42	6.62	4.08	3.38
25	3.67	3.67	5.58	5.00	6.50	6.00	5.25			5.70	3.96	3.33
26	3.67	3.67	5.50	5.08	7.29	5.75	5.00	7.15	5.10	5.17	3.54	3.33
27	3.67	3.67	5.92	5.92	8.34	5.50	5.00	6.46	4.89	5.17	3.58	3.33
28	3.75	3.67	5.75	6.25	6.92	5.88	4.88	6.00	4.21	4.88	3.54	3.33
29	3.67	3.67	5.83	5.33		5.75	4.75	5.83		4.67	3.50	3.33
30	3.67	3.67	5.71	5.33	-------	6.33	4.75	5.67	4.55	4.50	3.50	3.33
31	3.67	-------	5.71	5.66	-------	6.12	-------	5.25	-------	4.46	3.50	-------

Note.—Gage height Oct. 21-24. Nov. 19, Dec. 13, Jan. 20, Apr. 15, May 1, 2, 5-7, 25, June 25, 29 and July 5 and 6 unsatisfactory. Stage-discharge relation Nov. 26 to Dec. 5 and Dec. 22 to Feb. 7 affected by ice.

OHIO BASIN—STATION NO. 20

ALLEGHENY RIVER AT FREEPORT

Location.—At three-span steel highway bridge, Freeport, Armstrong County, about 500 feet upstream from mouth of Buffalo Creek.

Drainage Area.—11,400 square miles, including Buffalo Creek.

Records Available.—April 16, 1873, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read to tenths twice daily by Mrs. Anna R. Burtner; during high stages more frequently. Elevation of gage zero 734.98 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of sand and gravel. Control is at a riffle about two miles downstream from the gage.

Extremes of Stage.—Maximum gage height during the year, estimated from hydrograph, 23.0 feet at 6 p. m. February 12; minimum, 1.2 feet several days in September.

Ice.—Stage-discharge relation usually affected by ice.

Cooperation.—Station is maintained in cooperation with United States Engineer Office, Pittsburgh, Pa.

Daily Mean Gage Height, in feet, of Allegheny River at Freeport, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	17.95	1.9	2.3	8.3	5.6	10.05	6.15	4.6	3.5	4.0	2.2	1.4
2	15.4	1.9	2.5	8.3	5.6	9.25	6.0	6.0	3.3	3.6	2.45	1.3
3	13.25	1.9	2.5	8.3	5.6	8.35	6.2	6.65	3.6	2.9	2.5	1.6
4	11.25	1.8	2.65	8.3	5.6	7.7	6.5	6.4	3.3	2.75	2.2	1.4
5	10.1	1.7	3.0	8.15	5.65	7.4	6.2	6.6	3.15	2.95	2.3	1.3
6	7.6	1.6	3.35	7.8	6.95	7.25	5.5	7.0	2.9	2.4	2.35	1.2
7	6.1	1.6	3.9	7.7	9.1	6.75	5.3	7.0	2.6	2.3	2.1	1.2
8	5.25	1.8	4.4	7.2	13.65	6.55	5.1	6.65	2.35	3.1	2.3	1.2
9	4.4	1.8	5.1	6.95	16.3	6.35	4.65	6.3	2.35	3.05	2.25	1.2
10	4.25	1.8	5.4	7.0	18.75	7.6	4.45	5.9	2.45	3.2	2.3	1.2
11	3.5	1.8	5.4	7.0	20.9	8.9	4.4	6.45	2.35	3.7	2.15	1.5
12	3.3	1.7	5.2	7.0	22.4	8.7	4.3	10.6	-------	3.85	2.3	1.3
13	3.0	1.7	5.35	7.0	19.7	9.05	4.25	9.25	2.15	2.9	2.9	1.25
14	2.85	1.7	5.75	7.0	16.35	8.9	4.0	8.15	2.3	2.3	2.75	1.2
15	2.6	1.7	6.5	7.0	14.7	8.35	3.95	7.2	2.1	2.2	2.6	1.3
16	2.6	1.9	5.9	6.55	12.65	9.35	4.45	6.4	2.1	2.2	2.6	1.8
17	2.5	1.9	5.6	5.85	10.7	9.65	4.8	5.85	2.35	2.0	3.55	2.35
18	2.5	1.9	9.3	5.6	9.25	8.85	4.8	6.05	2.25	2.2	3.05	2.45
19	2.5	1.9	13.75	6.5	7.4	9.25	4.35	6.45	2.1	2.2	2.65	2.6
20	2.5	1.9	14.25	6.8	6.45	10.2	4.25	6.65	1.75	2.1	2.35	2.6
21	2.5	1.9	12.7	6.4	6.05	10.3	4.95	5.35	1.9	1.95	2.4	2.6
22	2.5	1.9	9.75	6.05	5.4	9.75	7.1	4.9	1.9	3.85	2.4	2.5
23	2.5	1.9	7.95	5.9	6.5	9.0	6.85	4.7	-------	5.0	2.1	3.1
24	2.5	2.2	7.35	5.9	11.95	8.1	6.3	4.7	2.0	3.3	2.1	3.65
25	2.4	2.2	7.1	5.9	13.35	7.7	6.05	6.4	2.55	2.6	-------	2.9
26	2.4	2.2	6.8	5.9	12.8	7.0	5.35	7.15	2.65	2.3	1.7	2.45
27	2.3	2.2	6.9	5.9	11.9	6.55	4.95	6.05	2.7	2.25	1.5	2.3
28	2.2	2.2	7.7	5.9	9.45	6.5	4.7	5.45	2.85	2.3	1.5	2.1
29	2.0	2.2	7.45	5.9	-------	7.25	4.4	5.15	3.1	2.3	1.5	1.9
30	2.0	2.2	7.7	5.7	-------	6.95	4.35	4.8	3.8	2.3	1.5	1.8
31	1.9	-------	7.6	5.45	-------	6.5	-------	4.4	-------	2.1	1.4	-------

Note.—Gage height not observed June 12, 23 and Aug. 25. Stage-discharge relation Dec. 1-4 and Dec. 27 to Feb. 9 affected by ice.

OHIO BASIN—STATION NO. 21

SOUTH FORK TEN MILE CREEK AT POLLOCK'S MILL

Location.—At single-span steel highway bridge, about two miles downstream from Jefferson, at Pollock's Mill, Greene County.

Drainage Area.—190 equare miles.

Records Available.—June 22, 1915, to September 30, 1925.

Gage.—Staff attached to downstream corner of right abutment; read to tenths twice daily by James M. Pollock.

Discharge Measurements.—Made from upstream side of bridge or by wading.

Channel and Control.—Right bank is high and not subject to over flow; left begins to overflow at a stage of about 7 feet. Bed is a formation of rock shingle and gravel. Control is at a riffle about 200 feet downstream from the gage; may shift occasionally.

Extremes of Stage.—Maximum gage height during the year, estimated from hydrograph, 6.8 feet at 2 p. m. July 22; minmum, 0.90 foot from 6 p.m. September 22 to 7 a.m. September 28.

Ice.—Stage-discharge relation usually affected by ice.

Cooperation.—Station is maintained in cooperation with United States Engineer Office, Pittsburgh, Pa.

Discharge measurements of South Fork Ten Mile Creek at Pollock's Mill, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
16	Oct. 14	H. J. McIntyre,	1.61	24.5
17	14a	do,	1.62	26.2

a Measurement made by wading 1,000 feet downstream from gage.

Daily Mean Gage Height, in feet, of South Fork Ten Mile Creek at Pollock's Mill, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.2	1.6	1.6	1.8	2.3	2.45	2.0	1.85	1.5	1.4	1.5	1.1
2	2.35	1.6	1.6	1.8	2.85	2.6	2.0	2.1	1.5	1.35	1.4	1.1
3	2.3	1.6	1.6	1.7	3.3	2.5	2.0	2.0	1.5	2.25	1.4	1.0
4	2.1	1.6	1.6	1.7	2.8	2.3	2.0	1.9	1.5	1.9	1.4	1.0
5	1.95	1.45	1.6	1.7	3.0	2.1	1.95	1.9	1.5	1.75	1.4	1.0
6	1.8	1.4	2.3	1.7	2.85	2.0	1.9	1.9	1.45	1.6	1.3	1.0
7	1.7	1.4	2.2	1.7	2.8	1.8	1.8	1.8	1.3	1.5	1.3	1.0
8	1.7	1.4	2.0	1.7	2.95	1.8	1.7	1.8	1.3	1.5	1.3	1.0
9	1.7	1.4	2.25	1.8	3.0	1.8	1.7	1.8	1.3	1.5	1.2	1.0
10	1.65	1.4	2.0	1.8	3.0	1.8	1.7	1.85	1.25	2.2	1.2	1.0
11	1.6	1.3	1.9	1.8	3.0	2.1	2.0	4.6	1.2	2.45	1.3	1.0
12	1.6	1.3	1.9	1.8	3.2	3.3	1.8	3.15	1.2	2.05	1.5	1.0
13	1.6	1.3	2.65	1.8	2.7	2.5	1.7	2.5	1.2	1.75	1.5	1.0
14	1.6	1.6	2.3	1.8	2.3	2.5	1.7	2.2	1.2	1.7	1.5	1.9
15	1.6	1.7	2.05	1.8	2.65	2.4	2.2	1.95	1.1	1.6	1.5	1.0
16	1.6	1.6	1.95	1.9	2.95	2.2	2.05	1.9	1.1	1.5	1.4	1.0
17	1.6	1.6	1.9	3.55	2.35	2.2	1.9	2.0	1.15	1.4	1.4	1.0
18	1.6	1.6	1.9	2.9	2.2	2.3	1.7	2.0	1.75	1.4	1.3	1.0
19	1.6	1.6	2.2	2.5	2.2	2.55	2.1	1.8	1.5	1.4	1.3	1.6
20	1.6	1.5	2.0	2.75	2.0	2.45	1.9	1.7	1.4	1.4	1.2	1.0
21	1.6	1.5	1.9	2.65	2.0	2.3	1.8	1.7	1.4	1.4	1.2	1.0
22	1.6	1.5	1.9	2.5	1.9	2.3	1.8	1.7	1.3	5.0	1.2	.95
23	1.6	1.7	1.9	2.4	2.2	2.0	1.8	1.7	1.3	4.7	1.2	.9
24	1.6	1.7	1.9	2.2	2.2	2.0	1.7	1.75	1.3	2.6	1.2	.9
25	1.6	1.7	1.8	1.85	2.15	1.9	1.7	1.8	1.3	1.9	1.2	.9
26	1.6	1.7	1.8	1.8	3.0	1.8	1.7	1.8	1.5	1.55	1.2	.9
27	1.6	1.7	1.8	2.4	2.6	2.0	1.7	1.7	1.4	1.5	1.1	.9
28	1.6	1.7	1.8	2.4	2.15	2.7	1.6	1.6	1.3	1.5	1.1	.95
29	1.6	1.6	1.8	2.4	-------	2.3	1.6	1.5	1.3	1.5	1.1	1.0
30	1.6	1.6	1.8	2.4	-------	2.2	1.6	1.5	1.5	1.5	1.1	1.0
31	1.6	-------	1.8	2.4	-------	2.0	-------	1.5	-------	1.5	1.1	-------

Note.—Stage-discharge relation Dec. 21 to Feb. 8 affected by ice.

OHIO BASIN—STATION NO. 22

MONONGAHELA RIVER AT SOUTH BROWNSVILLE

Location.—At four-span steel highway bridge, known as Brownsville Bridge, South Brownsville, Fayette County, about one-quarter of a mile downstream from Lock No. 5.

Drainage Area.—5,130 square miles.

Records Available.—February 18, 1915, to September 30, 1925.

Gage.—Staff in two sections; lower is at Lock No. 5 attached to downstream side of middle wall, graduated from zero to 32.4 feet; upper is about 200 feet downstream from the lower lock gate, on railroad enbankment, graduated from 31.0 feet to 45.5 feet. Gage read to tenths twice daily by Charles W. Keibler; during high stages more frequently. Elevation of gage zero 726.23 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge.

Channel and Control.—Right bank is high and not subject to overflow; left is overflowed during extremely high stages. Control is Lock and Dam No. 4. Flashboards are used on the dam during low water which affect the stage-discharge relation.

Extremes of Stage.—Maximum gage height during the year, 25.5 feet observed at 4 a. m. May 12; minimum, 9.30 feet from 8 a. m. September 16 to 8 p. m. September 18.

Ice.—Stage-discharge relation usually affected by ice.

Cooperation.—Station is maintained in cooperation with United States Engineer Office, Pittsburgh, Pa.

Daily Mean Gage Height, in feet, of Monongahela River at South Brownsville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	24.2	11.4	12.4	12.9	13.4	13.3	14.1	15.15	10.6	12.25	12.0	10.55
2	19.35	11.4	12.4	12.55	14.25	14.45	14.3	16.4	10.55	12.0	12.0	10.45
3	15.4	11.4	12.35	12.05	19.1	15.8	14.6	16.5	11.25	13.6	12.15	10.25
4	13.4	11.6	12.1	12.3	19.8	14.65	14.55	15.25	11.65	14.1	12.05	10.4
5	12.6	11.6	12.3	12.8	16.95	13.95	15.15	14.0	11.7	13.25	12.0	10.5
6	12.1	11.5	13.1	12.85	16.1	13.3	14.9	13.55	11.65	12.7	12.0	10.45
7	11.75	11.4	15.1	12.4	16.1	12.9	14.1	13.45	11.6	12.3	12.0	10.5
8	11.45	11.4	15.35	12.1	16.15	12.7	13.45	13.4	11.6	12.35	11.85	10.55
9	11.2	11.3	15.6	12.1	16.2	12.6	13.0	12.9	11.95	12.3	11.7	10.55
10	11.1	11.3	16.1	12.0	16.25	12.55	12.55	12.65	12.55	12.25	11.65	10.45
11	11.85	11.3	15.0	12.0	16.15	12.4	12.4	17.1	12.55	12.75	11.6	10.2
12	10.65	11.3	14.25	11.8	16.65	12.85	12.3	24.8	12.6	12.65	11.6	9.8
13	10.8	11.35	13.7	12.1	16.6	13.5	12.15	20.85	12.4	13.15	11.6	9.65
14	10.7	11.7	14.55	13.0	15.0	13.55	12.0	16.8	12.1	13.0	11.7	9.6
15	10.6	11.75	14.7	12.95	14.75	13.6	11.85	14.35	11.95	12.6	11.7	9.45
16	10.5	11.8	14.0	12.6	20.9	13.45	11.8	13.45	11.85	12.35	12.05	9.3
17	11.2	12.0	13.6	14.1	20.75	13.2	11.55	13.0	11.75	12.1	11.9	9.3
18	11.8	12.15	13.8	19.25	16.95	13.1	11.4	12.5	12.15	11.95	11.8	9.3
19	11.9	12.4	14.45	18.6	14.95	15.7	11.4	12.15	12.85	11.9	11.6	9.45
20	12.0	12.4	14.3	16.8	14.0	22.8	11.45	11.8	13.55	11.75	11.5	9.55
21	11.9	12.25	13.8	19.55	13.3	19.2	11.45	11.55	13.0	11.95	11.4	9.7
22	11.85	12.2	13.4	17.65	12.9	15.75	11.35	11.45	12.6	15.25	11.35	9.75
23	11.85	12.3	12.95	15.55	12.7	14.2	11.35	11.15	12.35	18.55	11.3	10.05
24	11.7	13.25	13.05	13.95	12.9	13.4	11.1	11.25	12.25	15.45	11.9	11.0
25	11.7	13.25	13.65	13.2	13.05	12.95	11.1	11.3	12.45	13.6	11.85	11.45
26	11.7	13.1	13.8	13.1	13.7	12.5	11.1	11.55	14.2	13.05	11.65	11.55
27	11.7	12.85	13.55	14.55	14.65	12.45	13.1	11.45	13.9	12.45	11.5	11.55
28	11.65	12.75	13.5	17.9	14.2	13.1	13.45	11.25	13.2	12.5	11.25	11.5
29	11.45	12.5	13.4	16.3	-------	15.0	13.8	10.95	12.8	12.3	11.05	11.55
30	11.4	12.4	13.05	15.0	-------	15.15	15.3	10.75	12.5	12.15	10.7	11.5
31	11.4	-------	12.95	13.8	-------	14.4	-------	10.65	-------	12.0	10.5	-------

OHIO BASIN—STATION NO. 23

YOUGHIOGHENY RIVER AT FRIENDSVILLE, MD.

Location.—At two-span steel highway bridge, Friendsville, Garrett County, about 6,000 feet upstream from the mouth of Bear Creek.

Drainage Are.—295 square miles.

Records Available.—August 17, 1898, to December 31, 1904, and September 1, 1922, to August 31, 1923, chain gage, and October 1, 1923, to September 30, 1925, staff gage.

Gages.—Standard chain attached to upstream side of bridge; elevation of gage zero 1,467.82 feet, United States Geological Survey datum. Staff gage attached to right side of pier near downstream end; read to half tenths twice daily by employees of Charles B. Hawley and Company. Elevation of gage zero 1,469.98 feet, United States Geological Survey datum.

Discharge Measurements.—Made from upstream side of bridge.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of gravel and rock. Low-water control is at a riffle, about 700 feet downstream from the gage, extending from the head of an island to the right and left banks, where the bed is composed of gravel and rock; probably permanent.

Extremes of Stage.—Maximum gage height during the year, 5.00 feet observed at 7 a. m. February 12 to 16; minimum, 2. 15 feet at 7 a. m. September 14.

Ice.—Stage-discharge relation usually affected by ice.

Cooperation.—Record furnished by Charles B. Hawley and Company, Washington, D. C.

The following discharge measurement was made by H. J. McIntyre: No. 21, October 10: Gage height, 4.24 feet; discharge, 108 second-feet.

Daily Mean Gage Height, in feet, of Youghiogheny River at Friendsville, Md., for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.12	2.38	2.70	-------	3.00	3.60	3.50	3.95	2.75	2.60	3.10	2.96
2	3.70	2.80	2.70	-------	3.20	4.75	3.50	4.48	2.62	2.85	3.02	2.75
3	3.38	2.30	2.70	-------	3.90	3.95	3.70	4.05	2.58	2.98	2.92	2.70
4	2.98	2.30	2.70	-------	3.60	3.70	3.70	3.78	2.52	2.75	2.90	2.75
5	2.88	2.30	2.95	-------	3.50	3.50	3.50	3.70	2.50	2.65	2.85	2.70
6	2.72	2.30	3.85	-------	3.85	3.35	3.35	3.48	2.50	2.75	2.95	2.80
7	2.55	2.30	4.00	-------	4.00	3.30	3.20	3.48	2.45	2.75	2.98	2.55
8	2.50	2.30	4.00	-------	4.20	3.20	3.15	3.28	2.50	2.60	2.90	2.90
9	2.50	2.30	3.75	-------	4.25	3.05	3.00	3.18	2.50	2.78	2.92	2.70
10	2.48	2.30	3.45	-------	4.55	3.00	3.00	3.22	2.48	2.82	2.85	2.70
11	2.40	2.30	3.20	-------	4.50	3.00	3.00	4.25	2.40	2.75	2.98	2.70
12	2.40	2.30	3.00	-------	4.85	3.25	3.00	4.52	2.40	-------	2.98	2.70
13	2.40	2.30	3.50	-------	4.10	3.25	2.85	4.05	2.40	2.90	3.25	2.55
14	2.35	2.30	3.55	-------	3.75	3.10	2.78	3.75	2.38	2.92	3.02	2.58
15	2.30	2.30	3.50	-------	4.15	3.00	2.75	3.55	2.35	2.88	2.95	2.60
16	2.30	2.40	3.35	-------	4.85	3.00	2.72	3.30	2.45	2.90	2.65	2.65
17	2.30	2.45	3.35	-------	4.20	3.00	2.70	3.25	2.40	2.90	2.75	2.65
18	2.30	2.50	3.70	-------	3.85	3.02	2.70	3.15	2.45	2.90	2.85	2.65
19	2.30	2.50	3.60	-------	3.55	4.35	2.70	3.02	2.68	2.65	2.88	2.65
20	2.30	2.50	3.45	-------	3.40	4.10	2.82	2.90	2.60	2.72	2.90	2.60
21	2.30	2.40	3.32	-------	3.20	3.85	2.75	2.85	2.48	3.00	2.98	2.60
22	2.30	2.50	3.30	-------	3.10	3.50	2.75	2.85	2.40	3.50	3.15	2.65
23	2.30	2.70	3.30	-------	3.10	3.45	2.78	2.85	2.50	3.45	2.85	2.65
24	2.30	2.95	3.30	-------	3.10	3.20	2.70	2.75	2.55	2.95	2.75	2.65
25	2.30	2.78	3.30	-------	3.35	3.00	2.75	3.20	3.28	2.92	2.90	2.65
26	2.30	2.68	-------	-------	3.35	3.00	3.40	2.98	3.20	2.75	2.85	2.65
27	2.35	2.60	-------	-------	3.25	3.00	3.40	2.88	2.82	2.90	2.88	2.55
28	2.40	2.60	-------	-------	3.15	3.65	3.40	2.80	2.65	2.95	2.90	2.30
29	2.40	2.62	-------	-------	-------	3.55	4.05	2.80	2.58	2.90	2.88	2.60
30	2.35	2.70	-------	-------	-------	3.35	3.80	2.92	2.52	2.85	2.85	2.60
31	2.30	-------	-------	-------	-------	3.20	-------	2.80	-------	3.00	2.70	-------

Note.—Stage-discharge relation Dec. 22 to Mar. 10 affected by ice. Gage height not observed on days of no record.

OHIO BASIN—STATION NO. 24

CASSELMAN RIVER AT MARKLETON

Location.—At two-span steel highway bridge, Markleton, Somerset County.

Drainage Area.—365 square miles.

Records Available.—August 13, 1913, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by N. B. Sanner.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Control is a 6 inch water main, backed with gravel and boulders, about 250 feet downstream from the gage, at the head of a series of riffles; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 6.5 feet at 4 a. m. February 12 and 2 p. m. May 11 (discharge, about 4,800 second-feet); minimum, 1.69 feet at 8 a. m. September 27 (discharge, 23 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined below 2,500 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

The following discharge measurement was made by H. J. McIntyre: No. 18, October 10: Gage height, 2.37 feet; discharge, 135 second-feet.

Daily Mean Gage Height, in feet, of Casselman River at Markleton, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	-------	2.15	2.02	2.60	2.98	3.22	3.33	3.90	2.67	2.30	3.55	1.87
2	-------	2.19	2.25	2.49	3.01	4.00	3.34	4.27	2.59	2.23	3.01	1.85
3	-------	2.08	2.24	2.43	3.47	3.42	3.44	3.76	2.56	2.19	2.75	1.95
4	-------	1.96	2.19	2.38	3.50	3.38	3.35	3.57	2.46	2.23	2.57	2.00
5	-------	1.94	2.26	2.54	3.35	3.36	3.23	3.62	2.42	2.23	2.47	1.96
6	-------	1.91	3.26	2.42	3.90	3.22	3.13	3.42	2.37	2.17	2.42	1.93
7	-------	1.90	3.52	2.64	4.37	3.36	3.04	3.32	2.47	2.11	2.41	1.91
8	-------	1.90	3.38	2.36	4.64	3.42	2.99	3.19	2.50	2.07	2.35	1.91
9	-------	1.90	3.18	2.68	5.02	3.38	2.92	3.09	2.47	2.08	2.29	1.86
10	2.36	1.89	2.92	2.37	5.42	3.24	2.89	3.15	2.36	2.09	2.31	1.83
11	2.32	1.88	2.70	2.23	5.82	3.21	2.99	5.62	2.24	2.32	2.80	1.79
12	2.28	1.90	2.66	2.34	6.07	3.78	2.89	5.05	2.21	2.19	2.71	1.79
13	2.25	1.90	3.42	2.35	4.77	3.46	2.80	4.31	2.15	2.19	2.55	1.79
14	2.24	2.27	3.54	2.44	4.40	3.36	2.73	3.97	2.13	2.05	2.75	1.93
15	2.20	2.20	2.84	2.62	4.52	3.30	2.85	3.71	2.15	2.05	2.51	1.95
16	2.17	2.13	3.08	2.68	4.70	3.26	2.81	3.50	2.86	1.99	2.34	1.92
17	2.17	2.04	3.13	3.83	4.24	3.32	2.70	3.59	2.63	2.11	2.25	1.89
18	2.15	1.98	3.38	3.74	3.92	3.50	2.71	3.37	2.39	2.09	2.19	1.85
19	2.14	1.90	3.21	3.16	3.68	4.55	2.73	3.17	2.31	2.01	2.14	1.79
20	2.11	1.94	3.01	2.90	3.56	4.24	2.91	3.07	2.26	1.95	2.23	1.77
21	2.11	2.00	2.46	2.73	3.42	3.94	2.75	2.96	2.17	2.34	2.31	1.76
22	2.07	2.14	2.59	2.70	3.39	3.70	2.65	3.35	2.11	4.54	2.29	1.80
23	2.08	2.57	2.63	2.60	3.48	3.54	2.67	3.03	2.12	3.31	2.21	1.79
24	2.07	2.36	2.82	2.60	3.51	3.40	2.69	3.29	2.18	2.69	2.09	1.75
25	2.07	2.26	2.81	2.64	3.37	3.30	2.60	3.63	3.55	2.47	2.03	1.72
26	2.05	2.06	2.51	2.97	3.40	3.20	2.59	3.25	3.11	2.39	1.99	1.70
27	2.05	2.06	2.51	4.27	3.12	3.23	2.57	3.07	2.67	2.38	1.95	1.71
28	2.13	2.10	2.52	3.44	2.91	3.50	2.63	2.95	2.44	3.35	1.97	1.77
29	2.15	2.14	2.51	3.16	-------	3.33	3.09	2.85	2.37	2.99	1.93	1.77
30	2.13	2.00	2.56	3.10	-------	3.26	3.17	2.79	2.41	2.63	1.92	1.77
31	2.09	-------	2.59	3.00	-------	3.27	-------	2.73	-------	2.84	1.88	-------

Note.—Gage height Oct. 1-9 not observed. Stage-discharge relation Nov. 28, 29, Dec. 2-4, Dec. 22 to Jan. 10 and Jan. 12 to Feb. 8 affected by ice.

Daily discharge, in second-feet, of Casselman River at Markleton, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,240	78	55	80	130	481	581	1,040	220	112	731	37
2	650	86	55	80	130	1,140	581	1,460	193	95	366	35
3	410	65	60	80	170	616	654	901	184	86	251	46
4	290	47	70	80	160	616	581	731	155	95	187	52
5	250	45	102	80	150	581	514	771	144	95	158	47
6	240	41	514	85	170	481	451	616	130	82	144	44
7	230	40	691	90	320	581	394	546	158	70	141	41
8	180	40	616	100	1,000	616	361	481	166	63	125	41
9	140	40	481	100	2,310	616	326	421	158	65	110	36
10	128	39	326	100	2,880	514	312	451	128	66	115	33
11	117	38	231	95	3,570	481	361	3,200	98	117	271	29
12	107	40	217	95	4,100	946	312	2,310	90	86	235	29
13	100	40	616	95	2,050	654	271	1,460	78	86	181	29
14	98	105	731	90	1,570	581	243	1,090	74	60	251	44
15	88	88	289	95	1,690	546	294	856	78	60	169	46
16	82	74	421	110	1,920	514	276	691	298	51	122	42
17	82	58	451	170	1,350	546	231	771	206	70	100	39
18	78	50	616	300	1,040	691	235	581	135	66	86	35
19	76	40	481	260	856	1,800	243	451	115	54	76	29
20	70	45	366	200	731	1,350	321	394	102	46	95	28
21	70	52	155	170	616	1,090	251	346	82	122	115	28
22	63	76	130	160	616	856	214	581	70	1,690	110	30
23	65	187	120	130	691	731	220	394	72	546	90	29
24	63	128	110	120	691	616	228	546	84	228	66	27
25	63	102	100	120	581	546	196	814	731	158	57	25
26	60	62	95	140	616	481	193	514	451	135	51	24
27	60	62	90	220	421	514	187	394	220	133	46	25
28	74	60	90	220	321	691	206	341	149	581	48	28
29	78	55	85	170	------	581	421	294	130	361	44	28
30	74	52	85	150	------	514	451	267	141	206	42	28
31	66	------	85	130	------	514	------	243	------	289	38	------

Note.—Discharge estimated Oct. 1-9, because of no gage height record, from discharge of Laurel Hill Creek at Ursina, Stony Creek at Johnstown and Raystown Branch Juniata River at Saxton, and Nov. 28, 29, Dec. 2-4, Dec. 22 to Jan. 10 and Jan. 12 to Feb. 8, because of ice, from weather records, study of gage height graph and comparison with similar studies for Laurel Hill Creek at Ursina, Youghiogheny River at Connellsville and Stony Creek at Johnstown.

Monthly discharge of Casselman River at Markleton, for the year ending September 30, 1925.

(Drainage area 365 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	1,240	60	174	0.477	0.55
November	187	38	64.5	.177	.20
December	731	55	275	.754	.87
January	300	80	133	.364	.42
February	4,100	130	1,100	3.01	3.13
March	1,800	481	693	1.90	2.19
April	654	187	337	.923	1.03
May	3,200	243	773	2.12	2.44
June	731	70	168	.460	.51
July	1,690	46	193	.529	.61
August	731	38	149	.408	.47
September	52	24	34.5	.095	.11
The Year	4,100	24	337	.923	12.53

OHIO BASIN—STATION NO. 25

LAUREL HILL CREEK AT URSINA

Location.—At two-span steel highway bridge, Ursina, Somerset County.

Drainage Area.—122 square miles.

Records Available.—August 12, 1913, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by Miss Lizzie R. Case.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of gravel and boulders. Control is at a riffle, where the bed is composed of gravel and boulders, a short distance downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 7.9 feet at 6 a. m. February 9 (discharge, about 7,250 second-feet); minimum, 1.53 feet at 9 a. m. August 31 (discharge, 3.4 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 2,400 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good.

The following discharge measurement was made by H. J. McIntyre: No. 19, October 10: Gage height, 2.06 feet; discharge, 76.7 second-feet.

Daily Mean Gage Height, in feet, of Laurel Hill Creek at Ursina, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.80	2.07	1.98	2.86	5.53	2.74	2.54	2.82	2.18	1.89	2.73	1.77
2	3.00	1.79	2.00	2.45	5.58	3.06	2.54	3.58	2.16	1.93	2.47	1.85
3	2.55	1.89	2.14	2.51	5.59	3.70	2.56	2.92	2.18	1.87	2.36	1.87
4	2.27	1.81	2.17	2.24	4.64	3.30	2.63	2.75	2.35	1.95	2.23	1.89
5	2.29	1.84	2.13	2.38	3.68	2.58	2.74	2.73	2.24	1.84	2.23	1.87
6	2.26	1.76	2.15	2.32	5.30	2.40	2.66	2.69	2.10	1.83	2.09	1.87
7	2.28	1.76	2.50	2.32	5.80	2.40	2.42	2.71	2.00	1.82	2.07	1.85
8	2.17	1.82	2.95	2.42	6.94	2.64	2.40	2.45	1.90	1.89	2.05	1.67
9	2.05	1.80	2.99	2.40	7.20	2.64	2.41	2.42	1.85	1.88	1.86	1.79
10	2.01	1.76	2.86	2.38	4.56	2.60	2.50	2.71	1.80	1.89	2.11	1.75
11	2.07	1.83	2.79	2.34	4.28	2.90	2.41	3.60	-------	-------	2.38	1.71
12	1.96	1.74	2.84	2.34	4.56	3.35	2.39	-------	1.85	1.82	2.47	1.71
13	2.04	1.74	3.24	2.38	4.35	-------	2.26	3.75	1.73	1.80	2.53	1.76
14	2.00	2.08	3.09	2.31	3.96	2.88	2.30	3.16	1.89	1.79	2.38	1.76
15	1.94	-------	2.88	2.28	3.74	2.86	2.27	2.85	1.74	1.85	2.05	1.93
16	1.89	1.68	2.44	2.40	3.49	2.78	2.38	2.65	2.23	1.80	1.77	1.64
17	1.91	-------	2.49	3.55	3.48	2.84	2.34	2.60	2.34	1.83	1.67	1.76
18	1.94	-------	2.83	3.69	2.71	2.82	2.24	2.52	2.03	1.89	1.87	1.77
19	1.89	1.71	2.64	3.05	2.52	3.27	2.26	2.49	1.94	1.85	1.91	1.75
20	1.91	1.82	2.62	3.80	2.58	3.01	2.22	2.45	1.83	1.87	1.85	1.69
21	1.94	1.80	2.42	3.00	2.52	2.77	2.20	2.35	1.86	2.47	1.72	1.66
22	1.96	1.96	2.36	2.64	2.60	2.74	2.23	2.80	1.80	5.00	1.87	1.65
23	1.90	1.86	2.49	2.63	2.69	2.56	2.26	2.54	1.95	3.29	1.93	1.75
24	1.82	1.96	2.62	2.40	2.78	2.44	2.23	3.90	1.94	2.61	1.88	1.79
25	1.79	1.86	2.62	2.65	2.56	2.41	2.09	2.96	2.59	2.33	1.92	1.71
26	1.85	1.94	2.62	2.77	2.56	2.40	2.17	2.76	2.42	2.36	1.79	1.70
27	1.83	1.97	2.76	3.76	2.43	2.40	2.09	2.64	-------	2.18	1.75	1.71
28	1.94	1.82	2.84	3.28	2.40	2.52	2.25	2.42	2.10	2.51	1.75	1.83
29	1.91	1.89	2.88	3.63	-------	2.52	2.26	2.38	1.97	2.35	1.73	1.71
30	1.88	1.92	2.75	5.35	-------	2.48	2.40	2.49	1.92	2.37	1.67	1.73
31	1.91	-------	2.74	5.80	-------	2.56	-------	2.28	-------	2.48	1.59	-------

Note.—Gage height Nov. 15, 17, 18, Mar. 13, May 12, June 11, 27 and July 11 unsatisfactory. Stage-discharge relation Nov. 29 to Dec. 5, 20, Dec. 22 to Feb. 9 and Feb. 12 and 13 affected by ice.

Daily discharge, in second-feet, of Laurel Hill Creek at Ursina, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,160	78	26	48	55	384	267	433	109	38	378	21
2	550	24	26	48	60	582	267	980	103	46	230	32
3	272	38	26	46	70	1,070	278	498	109	36	177	36
4	140	26	28	46	60	755	318	390	172	50	126	38
5	146	31	50	46	60	289	384	378	129	31	126	36
6	136	20	100	44	120	195	336	354	85	30	82	36
7	143	20	245	44	400	195	205	366	60	28	78	32
8	106	28	518	44	750	324	195	220	40	38	72	9.7
9	72	25	544	44	2,000	324	200	205	32	37	34	24
10	62	20	459	44	1,950	300	245	366	25	38	88	18
11	78	30	414	46	1,630	485	200	980	26	28	186	13
12	52	17	446	46	1,200	940	190	2,200	32	28	230	13
13	70	17	720	44	900	600	136	1,120	16	25	262	20
14	60	80	615	44	720	472	150	650	38	24	186	20
15	48	40	472	44	1,120	459	140	452	17	32	72	46
16	38	10	215	60	900	408	186	330	126	25	21	7.7
17	42	10	240	100	900	446	168	300	168	30	9.7	20
18	48	12	440	95	366	433	129	256	68	38	36	21
19	38	13	324	80	256	720	136	240	48	32	42	18
20	42	28	260	65	289	550	122	220	30	36	32	11
21	48	25	205	60	256	402	115	172	34	230	15	9.0
22	52	52	130	55	300	384	126	420	25	2,440	30	8.3
23	40	34	95	55	354	278	136	267	50	755	46	18
24	28	52	80	60	408	215	126	755	48	306	37	24
25	24	34	60	65	278	200	82	524	294	164	44	13
26	32	48	50	75	278	195	106	396	205	177	24	12
27	30	54	50	85	210	195	82	324	140	109	18	13
28	48	28	50	70	195	256	132	205	85	250	18	30
29	42	26	50	60	-------	256	136	186	54	172	16	13
30	37	26	50	55	-------	235	195	240	44	182	9.7	16
31	42	-------	50	50	-------	278	-------	143	-------	235	5.3	------

Note.—Discharge estimated, Nov. 15, 17, 18, Mar. 13, May 12, June 11, 27 and July 11, because of unsatisfactory gage height record, from weather records, study of gage height graph and comparison with discharge of streams in adjacent drainage areas, and Nov. 29 to Dec. 5, 20, Dec. 22 to Feb. 9 and Feb. 12 and 13, because of ice, from weather records, study of gage height graph and comparison with similar studies for Youghiogheny River at Connellsville and Kiskiminitas River at Avonmore.

Monthly discharge of Laurel Hill Creek at Ursina, for the year ending September 30, 1925.

(Drainage area 122 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	1,160	24	120	0.984	1.13
November,	80	10	31.5	.258	.29
December,	720	26	227	1.86	2.14
January,	100	44	57.0	.467	.54
February,	2,000	55	574	4.70	4.80
March,	1,070	195	414	3.39	3.91
April,	384	82	183	1.50	1.67
May,	2,200	143	470	3.85	4.44
June,	294	16	80.4	.659	.74
July,	2,440	24	184	1.51	1.74
August,	378	5.3	88.3	.724	.83
September,	46	7.7	21.0	.172	.19
The Year,	2,440	5.3	203	1.66	22.51

OHIO BASIN—STATION NO. 26

YOUGHIOGHENY RIVER AT CONNELLSVILLE

Location.—At two-span steel highway bridge between New Haven and Connellsville, Fayette County.

Drainage Area.—1,320 square miles.

Records Available.—July 22, 1908, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge. Peter M. Rulli, observer. Elevation of gage zero 860.13 feet, United States Geological Survey datum.

Discharge Measurments.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of gravel and rocks. Control is at a riffle about 500 feet downstream from the gage, where bed is rock formation; permanent.

Extremes of Discharge.—Maximum stage during the year, 9.70 feet observed 5 p. m. May 10 (discharge, 20,900 second-feet); minimum, 0.40 foot at 5 p. m. November 11 (discharge, 75 second-feet.)

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 30,000 second-feet. Gage supposed to have been read to hundredths twice daily. Daily mean gage heights were computed from a continuous daily hydrograph, using as many of the observer's gage heights as appeared authentic, in connection with graphs for the Sutersville gaging station and the United States Weather Bureau gage height stations at Confluence and West Newton on the same stream. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for estimated periods when they are fair.

Discharge measurements of Youghiogheny River at Connellsville, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
37	Oct. 13	H. J. McIntyre,	1.32	417
38	Aug. 13a	J. E. Stewart,	1.93	990

a Measurement made from upstream side of bridge.

Daily Mean Gage Height, in feet, of Youghiogheny River at Connellsville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.99	-------	-------	1.17	1.90	3.00	-------	4.55	-------	-------	-------	-------
2	3.64	-------	-------	1.07	3.40	4.40	-------	4.40	-------	-------	-------	-------
3	-------	-------	-------	1.03	3.70	3.95	3.05	3.95	-------	-------	-------	-------
4	2.44	.78	-------	1.01	3.90	-------	-------	3.40	1.60	-------	-------	-------
5	2.08	.72	1.15	1.42	3.00	3.15	-------	3.00	1.44	1.40	1.80	-------
6	1.99	.65	1.44	1.44	2.55	3.00	-------	-------	-------	1.30	-------	-------
7	1.79	.63	-------	1.32	3.60	-------	-------	-------	-------	1.17	-------	-------
8	1.59	.59	-------	1.46	6.20	-------	-------	-------	-------	-------	-------	-------
9	1.49	.53	-------	1.30	-------	-------	-------	2.10	-------	-------	-------	-------
10	1.39	.50	2.60	1.35	7.90	-------	-------	6.85	-------	-------	-------	-------
11	-------	.41	-------	1.25	6.60	-------	2.35	7.05	-------	-------	1.70	-------
12	-------	.45	-------	1.24	-------	2.55	-------	5.00	-------	-------	1.94	-------
13	1.22	.78	2.00	1.18	-------	3.25	2.25	4.05	-------	-------	1.83	-------
14	-------	1.05	2.35	1.13	4.50	-------	-------	3.45	-------	-------	1.69	-------
15	1.07	1.16	-------	1.09	4.50	-------	-------	3.00	-------	-------	1.56	-------
16	.99	-------	-------	1.38	-------	-------	-------	2.50	-------	-------	1.40	-------
17	.97	-------	-------	4.00	4.40	-------	-------	2.75	-------	-------	-------	-------
18	-------	1.04	-------	6.35	-------	-------	-------	2.70	-------	-------	-------	-------
19	-------	.99	-------	4.10	-------	4.50	-------	2.45	-------	-------	-------	-------
20	-------	.96	2.30	3.00	-------	-------	2.10	2.10	-------	-------	-------	-------
21	-------	.91	1.95	2.35	-------	-------	-------	2.10	-------	-------	-------	-------
22	-------	-------	1.70	2.15	-------	3.30	-------	2.27	-------	-------	-------	-------
23	-------	-------	1.54	1.96	-------	-------	-------	1.97	-------	-------	-------	-------
24	.70	-------	1.31	2.15	-------	-------	-------	3.00	-------	-------	-------	-------
25	.71	-------	1.21	2.10	-------	-------	-------	3.30	1.50	-------	-------	-------
26	.70	1.35	1.14	2.75	3.70	-------	-------	2.84	-------	-------	-------	-------
27	.76	1.19	1.08	3.80	3.25	-------	-------	2.55	2.10	-------	-------	-------
28	-------	1.13	1.04	4.35	2.75	-------	-------	-------	-------	-------	-------	-------
29	.78	1.01	1.07	3.20	-------	-------	-------	2.25	-------	-------	-------	-------
30	-------	.94	1.30	2.25	-------	-------	-------	2.05	-------	-------	-------	-------
31	-------	-------	1.26	2.03	-------	2.60	-------	-------	-------	-------	-------	-------

Note.—Gage height unsatisfactory on days of no record, excepting Sept. 26-30 when they were not observed. Stage-discharge relation Dec. 30 to Jan. 1, 5-14 and Jan. 16 to Feb. 6 affected by ice.

Daily discharge, in second-feet, of Youghiogheny River at Connellsville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,770	200	220	300	440	2,150	1,600	4,890	850	320	700	220
2	3,070	200	240	298	480	4,480	1,600	4,480	800	280	1,200	220
3	1,900	190	280	298	600	3,740	2,150	3,740	700	240	950	220
4	1,430	174	280	270	550	2,600	2,400	2,750	640	220	750	220
5	1,050	156	352	300	500	2,450	2,400	2,150	535	500	790	220
6	960	135	535	300	950	2,150	2,200	1,900	500	440	800	200
7	790	129	950	320	3,070	2,200	1,900	1,600	480	352	600	200
8	640	118	1,900	360	8,900	2,000	1,700	1,300	440	320	480	200
9	570	102	2,400	320	15,000	1,900	1,600	1,050	480	320	360	190
10	500	95	1,610	320	14,500	1,700	1,500	10,800	380	380	300	180
11	460	77	1,000	320	10,100	1,600	1,320	11,400	360	650	710	180
12	420	85	950	320	8,000	1,610	1,300	5,770	300	500	915	180
13	380	174	960	320	6,000	2,450	1,200	3,740	300	360	830	170
14	360	298	1,320	320	4,680	2,800	1,200	2,750	280	300	710	160
15	298	352	2,400	325	4,080	2,200	1,100	2,150	280	240	605	160
16	265	320	2,400	400	6,000	1,900	1,000	1,490	300	200	500	150
17	255	300	1,600	700	4,480	1,600	1,000	1,870	500	220	400	150
18	240	298	1,400	1,100	3,600	2,200	1,000	1,740	400	220	320	140
19	220	265	1,400	850	3,000	4,680	1,000	1,430	360	220	300	140
20	200	250	1,260	700	2,400	4,400	1,050	1,050	320	220	280	140
21	190	225	915	550	2,200	3,400	1,050	1,050	300	540	380	180
22	180	240	710	500	2,000	2,600	1,000	1,200	280	6,500	480	170
23	170	500	605	480	1,900	2,200	850	915	280	4,600	500	160
24	150	650	440	440	2,000	1,900	850	2,150	280	2,200	380	150
25	153	550	380	480	2,200	1,600	850	2,600	570	1,200	280	140
26	150	470	352	550	3,230	1,400	850	1,870	1,300	900	200	140
27	168	380	325	800	2,450	1,600	800	1,610	1,050	700	180	130
28	170	352	298	700	1,870	2,400	750	1,400	800	650	200	130
29	174	270	298	550	-------	2,200	800	1,200	600	650	220	120
30	170	240	300	480	-------	1,900	1,600	1,000	440	650	220	120
31	170	-------	300	440	-------	1,610	-------	950	-------	650	220	-------

Note.—Discharge estimated Oct. 3, 11, 12, 14, 18-23, 28, Oct. 30 to Nov. 3, Nov. 16, 17, 22-25, Dec. 1-4, 7-9, 11, 12, 15-19, Feb. 9, 12, 13, 16, 18-25, Mar. 3, 7-11, 14-18, 20, 21, Mar. 23-30, Apr. 1, 2, 4-10, 12, 14-19, 22-30, May 6-8, 28, May 31 to June 3, June 6-24, 26, June 28 to July 4, July 8 to Aug. 4, 6-10 and Aug. 17 to Sept. 25, because of unsatisfactory gage height record, and Sept. 26-30, because of no gage height record, from weather records, study of gage height graph and comparison with discharge of Youghiogheny River at Sutersville and gage height records for United States Weather Bureau Stations at Confluence and West Newton. Discharge Dec. 30 to Jan. 1, 5-14 and Jan. 17 to Feb. 6 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Kiskiminitas River at Avonmore, Chartiers Creek at Carnegie and Shenango River at Sharon.

Monthly discharge of Youghiogheny River at Connellsville, for the year ending September 30, 1925.

(Drainage area 1,320 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	5,770	150	698	0.529	0.61
November,	650	77	260	.198	.22
December,	2,400	220	915	.693	.80
January,	1,100	270	465	.352	.41
February,	15,000	440	4,140	3.14	3.27
March,	4,680	1,400	2,370	1.80	2.08
April,	2,400	750	1,320	1.00	1.12
May,	11,400	915	2,710	2.05	2.36
June,	1,300	280	504	.382	.43
July,	6,500	200	834	.632	.73
August,	1,200	180	508	.385	.44
September,	220	120	169	.128	.14
The Year	15,000	77	1,220	.924	12.61

OHIO BASIN—STATION NO. 27

YOUGHIOGHENY RIVER AT SUTERSVILLE

Location.—At three-span steel highway bridge, Sutersville, Westmoreland County.

Drainage Area.—1,680 square miles.

Records Available.—June 11, 1915, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by William Pritchard. Elevation of gage zero 733.14 feet, United States Geological Survey datum.

Discharge Measurements.—Made from upstream side of bridge.

Channel and Control.—Right bank is low and subject to overflow; left is high and does not everflow. Bed is composed of shifting sand and gravel overlaying a rocky bed. Control is at a riffle about 400 feet downstream from the gage at right side of stream; probably permanent.

Extremes of Discharge.—Maximum stage during the year, 12.26 feet observed at 3 p. m. February 8 (discharge, 20,400 second-feet); minimum, 2.46 feet at 3 p. m. September 29 (discharge, 118 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined between 400 and 1,600 second-feet and fairly well defined from 1,600 to 40,000 second-feet. Gage read to hundredths twice daily. Daily mean gage heights were computed from a continuous daily hydrograph, using the observer's gage heights in connection with graphs for the Connellsville gaging station and the United States Weather Bureau gage height stations at Confluence and West Newton on the same stream. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

Cooperation.—Station is maintained in cooperation with United States Engineer Office, Pittsburgh, Pa.

Discharge measurements of Youghiogheny River at Sutersville, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
18	Oct. 17	H. J. McIntyre,	2.94	475
19	Sept. 30	R. J. Ferris,	2.61	173

Daily Mean Gage Height, in feet, of Youghiogheny River at Sutersville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.05	2.78	2.80	9.50	9.50	4.70	4.80	-------	3.65	2.95	3.42	-------
2	5.62	2.76	2.84	-------	9.61	5.45	4.69	6.30	3.52	2.87	3.97	-------
3	4.85	2.76	-------	-------	9.68	5.95	5.15	6.10	3.39	2.82	3.77	2.73
4	4.40	2.74	2.89	-------	9.75	5.42	5.32	5.50	3.27	2.77	3.49	2.77
5	4.02	2.72	3.05	-------	9.75	5.22	5.20	5.30	3.19	-------	3.47	-------
6	3.75	2.69	3.52	-------	10.00	5.12	5.08	5.05	3.13	-------	3.45	2.73
7	3.58	2.65	-------	-------	11.10	5.02	4.95	4.75	3.10	-------	3.32	-------
8	3.42	2.62	-------	-------	12.20	4.92	4.75	4.65	3.10	-------	3.17	-------
9	3.28	2.64	4.98	-------	12.15	4.82	4.56	4.38	3.11	-------	-------	-------
10	3.19	2.64	4.60	-------	10.80	4.65	4.38	4.28	3.05	-------	2.92	2.67
11	3.12	2.62	4.22	-------	9.25	4.48	4.30	8.07	2.99	3.37	3.52	2.67
12	3.08	2.62	4.16	-------	-------	-------	4.25	10.18	2.87	3.22	3.82	-------
13	3.05	2.60	4.11	-------	6.92	5.40	4.20	7.35	2.84	3.02	3.59	-------
14	3.01	2.92	4.10	-------	6.50	5.50	4.16	-------	2.84	2.92	3.75	2.63
15	3.00	-------	5.00	-------	6.20	5.08	4.15	5.10	2.86	2.79	3.77	-------
16	2.97	-------	5.19	-------	6.48	4.86	4.10	-------	2.97	2.79	3.47	2.62
17	2.96	2.90	-------	-------	6.82	4.70	4.08	5.05	3.35	-------	3.21	2.62
18	2.90	2.90	4.38	-------	-------	4.82	4.05	5.10	3.25	-------	2.94	2.61
19	2.88	2.90	4.45	-------	5.58	5.72	4.05	4.90	3.05	2.87	2.87	2.58
20	2.86	2.90	-------	-------	5.28	6.75	4.00	4.50	-------	2.87	2.84	2.58
21	2.83	2.90	4.04	-------	5.02	6.00	3.95	4.20	2.94	2.77	3.15	2.66
22	2.79	2.91	3.82	-------	4.88	5.25	3.85	4.30	2.89	6.85	3.11	2.62
23	2.78	3.25	3.92	-------	4.85	5.10	3.85	4.40	2.82	6.42	3.22	-------
24	2.75	3.55	4.52	-------	4.92	4.96	3.82	4.42	-------	4.72	3.05	-------
25	2.71	3.52	4.74	-------	5.02	4.62	3.78	5.27	-------	4.07	2.83	-------
26	2.78	-------	-------	-------	5.60	4.54	3.72	5.19	-------	3.67	2.67	-------
27	2.78	-------	4.28	-------	5.65	4.51	3.68	4.67	4.12	3.45	2.76	2.52
28	2.78	3.05	4.15	-------	4.85	5.20	3.60	4.35	-------	3.42	2.75	2.50
29	2.78	2.90	3.82	-------	-------	5.10	-------	4.12	-------	3.38	2.74	2.48
30	2.78	2.74	3.90	-------	-------	4.88	-------	3.95	-------	3.37	2.77	2.52
31	2.78	-------	4.05	9.50	-------	4.85	-------	3.79	-------	3.37	2.76	-------

Note.—Gage height Nov. 15, 16, 26, 27, Dec. 3, 7, 8, 17, 20, 26, Feb. 12, 18, Mar. 12, Apr. 29 to May 1, May 14, 16, June 20, 24-26, 28-30, July 5-10, 17, 18, Aug. 9, Sept. 1, 2, 5, 7-9, 12, 13, 15 and 23-26 unsatisfactory and Jan. 2-30 not observed. Stage-discharge relation Dec. 23 to Feb. 7 affected by ice.

Daily discharge, in second-feet, of Youghiogheny River at Sutersville, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,400	260	270	400	550	2,210	2,350	2,500	990	365	750	260
2	3,630	250	294	400	600	3,270	2,210	5,000	840	312	1,300	260
3	2,350	250	340	400	700	4,400	2,940	4,600	750	282	1,090	225
4	1,820	240	324	400	650	3,270	3,100	3,450	615	255	840	255
5	1,350	230	440	400	550	2,940	2,940	3,100	570	550	795	240
6	1,090	215	840	440	1,000	2,790	2,790	2,640	525	480	795	225
7	940	195	1,600	480	3,000	2,640	2,640	2,350	480	400	660	220
8	750	180	2,400	480	20,000	2,490	2,350	2,080	480	380	525	220
9	660	190	2,640	480	20,000	2,350	2,080	1,820	480	380	380	200
10	570	190	2,080	480	15,800	2,080	1,820	1,700	440	400	344	205
11	480	180	1,580	480	11,500	1,950	1,700	8,840	393	705	840	205
12	480	180	1,580	480	8,500	2,000	1,580	14,200	312	570	1,140	200
13	440	170	1,460	440	6,200	3,270	1,580	7,280	294	400	940	180
14	400	344	1,460	440	5,400	3,450	1,580	4,200	294	344	1,090	185
15	400	500	2,640	480	4,800	2,790	1,580	2,790	306	265	1,090	180
16	379	400	2,940	750	5,400	2,490	1,460	2,200	379	265	795	180
17	372	330	2,000	1,400	6,000	2,210	1,460	2,640	705	320	570	180
18	330	330	1,820	1,200	4,800	2,350	1,350	2,790	615	320	358	175
19	318	330	1,820	850	3,630	3,810	1,350	2,490	440	312	312	162
20	306	330	1,600	650	3,100	6,000	1,350	1,950	440	312	294	162
21	288	330	1,350	600	2,640	4,400	1,300	1,580	358	255	525	200
22	265	337	1,140	550	2,490	2,940	1,190	1,700	324	6,000	480	180
23	260	615	900	550	2,350	2,790	1,190	1,820	282	5,200	570	180
24	245	890	700	550	2,490	2,640	1,140	1,820	320	2,210	440	160
25	225	840	550	650	2,640	2,080	1,140	3,100	550	1,460	288	150
26	260	750	480	850	3,630	1,950	1,040	2,940	1,700	990	205	150
27	260	600	440	1,000	3,630	1,950	1,040	2,210	1,460	795	250	138
28	260	440	400	850	2,350	2,940	940	1,820	1,000	750	245	130
29	260	330	400	650	-------	2,790	950	1,460	650	750	240	124
30	260	240	400	600	-------	2,490	1,400	1,300	550	705	255	138
31	260	-------	400	550	-------	2,350	-------	1,140	-------	705	250	-------

Note.—Discharge Nov. 15, 16, 26, 27, Dec. 3, 7, 8, 17, 20, 26, Feb. 12, 18, Mar. 12, Apr. 29 to May 1, May 14, 16, June 20, 24-26, 28-30, July 5-10, 17, 18, Aug. 9, Sept. 1, 2, 5, 7-9, 12, 13, 15, and 23-26 estimated, because of unsatisfactory gage height record, from weather records, study of gage height graph and comparison with discharge of Youghiogheny River at Connellsville and gage height records for United States Weather Bureau stations at Confluence and West Newton. Discharge Dec. 23 to Feb. 7 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Big Sandy Creek at Rockville, West Virginia, and Youghiogheny River at Connellsville.

Monthly discharge of Youghiogheny River at Sutersville, for the year ending September 30, 1925. (Drainage area 1,680 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	6,400	225	849	0.505	0.58
November	890	170	356	.212	.24
December	2,940	270	1,200	.714	.82
January	1,400	400	611	.363	.42
February	20,000	550	5,160	3.07	3.20
March	6,000	1,950	2,840	1.69	1.95
April	3,100	940	1,720	1.02	1.14
May	14,200	1,140	3,210	1.91	2.20
June	1,700	282	585	.348	.39
July	6,000	255	885	.527	.61
August	1,300	205	602	.358	.41
September	260	124	190	.113	.13
The Year	20,000	124	1,500	.893	12.09

OHIO BASIN—STATION NO. 28

TURTLE CREEK NEAR TRAFFORD

Location.—At single-span steel highway bridge, Blackburn Station, Pennsylvania Railroad, about one and a quarter miles northeast of Trafford, Westmoreland County.

Drainage Area.—55 square miles.

Records Available.—July 28, 1914, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge. S. T. Churchfield, observer.

Discharge Masurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of hardpan and gravel; not subject to change. Control is at a riffle about 50 feet downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 2.2 feet at midnight September 30-October 1, 1924, when the stream was falling, and 5 p. m. February 7 and 11 a. m. March 19. (discharge, 369 second-feet); minimum, 0.58 foot at 6.10 p. m. September 30 (discharge, 3.9 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 300 second-feet. Gage supposed to have been read to hundredths twice daily. Daily mean gage heights were computed from a continuous daily hydrograph, using as many of the observer's gage heights as appeared authentic, in connection with graphs for Carnegie station. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for high stages and estimated periods when they are fair.

Discharge measurements of Turtle Creek near Trafford, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
27	Oct. 15	H. J. McIntyre	0.79	13.8
28	Sept. 30	R. J. Ferris	.58	4.12

Daily Mean Gage Height, in feet, of Turtle Creek near Trafford, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				1.39	1.47	1.43			0.99			
2				1.41	1.70	1.42			.94			
3				1.39	1.69	1.38			.89			
4				1.36	1.65	1.35			.85			
5				1.34	1.59	1.31			.82	1.04		
6				1.32	1.55	1.28			.76	.99		
7				1.30	1.49	1.23				.94		
8				1.28	4.30	1.20				.88		
9				1.25	4.75	1.18				.85		
10				1.22		1.18				1.10		
11				1.19		1.22						
12				1.18								
13			1.10	1.23								
14	.98		1.15	1.22				1.19				
15	.96		1.16	1.20				1.15		.93		
16	.93		1.31	1.22				1.11		.89		
17	.89		2.00					1.40				
18	.85		2.26					1.45				
19			2.25	1.30				1.30				
20			2.17	1.28				1.25				
21			2.05	1.31				1.21		.68		
22			1.89	1.29				1.19				
23			1.85	1.25	1.70			1.14				
24			1.81	1.21	1.65			1.55				
25			1.78	1.17	1.59			1.50				
26			1.73	1.30	1.75			1.37				
27			1.69	1.40				1.32				
28			1.65	1.47				1.24				
29			1.58	1.43				1.16				
30			1.51	1.39				1.11	1.30			.62
31			1.46	1.42				1.07				

Note.—Gage height unsatisfactory on days of no record. Stage-discharge relation Dec. 15 to Jan. 16, Jan. 19-24 and Jan. 28 to Feb. 9 affected by ice.

Daily discharge, in second-feet, of Turtle Creek near Trafford, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1				14	24	94			27			
2				14	24	91			22	26		
3				14	24	83			17			
4				14	24	78			14			
5				14	24	71			12	33		
6				14	24	66			8.7	27		
7	55		36	14	26	58		55		22		
8				14	34	53				17		
9				14	85	50				14		
10				14		50				40		
11				14		56						
12				14								
13			40	14						25		
14	26		46	14				52				
15	24	13	40	18	150		30	46		21	22	8
16	21		34	18				41	16	17		
17	17		70	182				87				
18	14		100	87				98				
19			85	60				60		45		
20			55	40				61				
21			34	28		90		55		5.9		
22			28	28				52				
23			24	28	165			45				
24			20	34	150			122				
25	14		18	40	132			109				
26			18	69	132			82				
27			17	87	165			73		25		
28			16	28	122			59				
29			14	34	-------			48				
30			14	24	-------			41	69			4.6
31		-------	14	24	-------		-------	36	-------			-------

Note.—Discharge estimated Oct. 1-13, Oct. 19 to Dec. 12, Jan. 17, 18, Feb. 10-22, 27, 28, Mar. 12 to May 13, June 7-29, July 1-4, 11-14, 17-20 and July 22 to Sept. 29, because of unsatisfactory gage height record, from weather records, study of gage height graph and comparison with discharge of Chartiers Creek at Carnegie, and Dec. 15 to Jan. 16, 19-24 and Jan. 28 to Feb. 9, because of ice, from weather records, study of gage height graph and comparison with similar studies for Youghiogheny River at Connellsville and Chartiers Creek at Carnegie. Braced figures show mean discharge for period included.

Monthly discharge of Turtle Creek near Trafford, for the year ending September 30, 1925.

(Drainage area 55 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	226	11	32.2	0.585	0.67
November	40	8.2	13.0	.236	.26
December	122	8.2	36.1	.656	.76
January	182	14	33.1	.602	.69
February	258	24	113	2.05	2.14
March	218	50	82.3	1.50	1.73
April	81	14	30.0	.545	.61
May	199	18	61.0	1.11	1.28
June	69	8.7	17.9	.325	.36
July	87	5.9	26.2	.476	.55
August	109	6.4	22.0	.400	.46
September	18	4.6	7.89	.143	.16
The Year	258	4.6	39.2	.713	9.67

OHIO BASIN—STATION NO. 29

CHARTIERS CREEK AT CARNEGIE

Location.—At single-span steel railroad bridge, known as Freight House Bridge, siding of the Chartiers Branch, Pennsylvania Railroad, Carnegie, Allegheny County.

Drainage Area.—260 square miles.

Records Available.—June 5, 1915, to September 30, 1925.

Gage.—Standard chain attached to downstream side of Freight House Bridge; read by F. J. Wenger.

Discharge Measurements.—Made from downstream side of Freight House Bridge, upstream side of Branch Line bridge about 100 feet upstream from the gage, or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of mud and slag over rocky floor. Control is at the first of a series of riffles about 600 feet downstream from the gage; practically permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 6.0 feet at 8 p. m. February 7 (discharge, 2,050 second-feet); minimum, 1.47 feet at 3 p. m. September 6 (discharge, 23 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined below 2,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

Cooperation.—Station is maintained in cooperation with United States Engineer Office, Pittsburgh, Pa.

Discharge measurements of Chartiers Creek at Carnegie, during the year ending September 30, 1925.

No.	Date	Made by	Gage height	Discharge
			Feet	Sec.-ft.
20	Oct. 15	H. J. McIntyre	2.12	83.8
21	Sept. 29	R. J. Ferris	1.51	24.9

Daily Mean Gage Height, in feet, of Chartiers Creek at Carnegie, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	4.52	1.90	1.71	2.18	2.68	3.58	2.79	2.47	2.41	2.30	2.25	1.57
2	3.70	1.90	1.79	2.10	3.92	3.71	2.93	2.38	2.35	2.01	2.04	1.56
3	3.22	1.85	1.73	2.16	4.52	3.37	2.85	2.26	2.37	1.98	1.84	1.74
4	2.92	1.80	1.80	2.18	3.71	3.25	2.75	2.16	2.25	1.97	1.87	1.65
5	2.77	1.84	2.10	2.15	3.40	3.17	2.69	2.56	2.19	2.12	2.54	1.59
6	2.62	1.84	3.75	2.09	4.02	3.01	2.61	2.42	2.15	1.99	2.68	1.49
7	2.58	1.86	3.15	2.12	5.30	3.03	2.53	2.36	2.24	1.92	2.32	1.65
8	2.47	1.84	2.72	2.28	4.87	3.13	2.51	2.24	2.18	1.87	2.06	1.62
9	2.36	1.82	2.68	2.21	4.57	3.09	2.47	2.16	2.17	1.82	1.93	1.59
10	2.28	1.79	2.50	2.10	4.68	2.96	2.44	2.21	2.14	2.85	1.94	1.53
11	2.30	1.79	2.34	2.04	4.82	3.12	2.60	4.36	2.11	2.70	2.66	1.50
12	2.23	1.80	2.58	2.01	5.02	3.57	2.59	4.04	2.07	2.18	2.60	1.50
13	2.18	1.80	2.82	2.11	4.22	3.29	2.45	3.32	2.03	1.98	2.88	1.50
14	2.18	2.60	2.89	2.24	3.66	3.33	2.46	3.02	1.98	1.91	3.53	1.51
15	2.08	2.10	2.56	2.14	3.70	3.73	2.58	2.85	1.97	1.82	2.62	1.54
16	2.10	1.92	2.49	2.33	4.32	3.39	2.46	2.71	1.97	2.00	2.09	1.68
17	2.08	1.82	3.06	4.33	4.27	3.45	2.37	3.51	1.95	3.38	1.90	1.65
18	2.02	1.81	3.41	2.32	3.79	3.30	2.38	3.57	1.93	2.76	1.80	1.59
19	2.04	1.80	3.45	2.82	3.54	4.59	2.42	3.17	1.89	2.17	1.75	1.55
20	2.02	1.79	2.87	2.72	3.41	4.03	2.48	2.96	1.85	1.84	1.74	1.63
21	2.04	1.78	2.47	2.56	3.42	3.87	2.37	2.44	1.81	1.94	1.98	2.19
22	2.03	1.82	2.44	2.48	3.41	3.53	2.28	2.98	1.79	3.26	1.96	1.80
23	1.99	2.04	2.50	2.74	4.19	3.23	2.25	2.75	1.77	2.69	1.82	1.64
24	1.95	1.97	2.57	2.54	4.15	3.17	2.22	3.98	1.76	2.06	1.72	1.57
25	1.96	2.02	2.34	2.76	3.83	3.09	2.17	3.55	1.79	1.92	1.70	1.53
26	1.95	1.94	2.17	3.18	4.47	2.99	2.14	3.25	2.07	2.39	1.61	1.49
27	1.95	1.86	2.28	3.50	4.21	3.07	2.11	2.91	2.04	2.02	1.59	1.48
28	1.95	1.82	2.37	2.44	3.69	3.17	2.13	2.77	2.00	2.00	1.59	1.55
29	1.95	1.86	2.14	2.52	-------	3.19	2.16	2.69	2.45	2.03	1.59	1.58
30	1.93	1.73	2.14	2.64	-------	3.01	2.32	2.57	2.88	1.96	1.59	1.60
31	1.88	-------	2.22	2.70	-------	2.86	-------	2.51	-------	1.94	1.59	-------

Note.—Stage-discharge relation Dec. 22-25, 27, 28 Dec. 31 to Jan. 1, Jan. 3-5, 7-10, 13, 14, 23 and 29-31 affected by ice.

Daily discharge, in second-feet, of Chartiers Creek at Carnegie, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,020	63	46	90	205	535	230	154	142	120	112	31
2	585	63	51	88	685	585	275	136	130	76	80	30
3	360	58	48	90	1,020	420	245	113	134	73	56	46
4	260	52	52	90	585	380	218	97	112	71	60	38
5	218	56	88	90	440	342	205	170	102	91	170	32
6	180	56	610	87	735	290	180	144	96	74	205	24
7	180	59	342	85	1,540	308	170	132	110	65	124	38
8	154	56	205	85	1,200	342	160	110	100	60	83	35
9	132	54	205	85	1,080	325	154	97	98	54	67	32
10	117	51	160	85	1,140	275	148	105	94	245	68	27
11	120	51	128	80	1,200	325	180	960	90	205	192	25
12	108	52	180	76	1,330	510	180	735	84	100	180	25
13	100	52	230	80	900	400	150	400	79	73	260	25
14	100	180	260	85	560	420	152	290	73	64	510	26
15	85	88	170	94	585	610	180	245	71	54	180	28
16	88	65	158	126	900	440	150	205	71	75	87	40
17	85	54	308	900	900	402	134	485	69	440	63	38
18	78	53	440	124	635	400	136	510	67	218	52	32
19	80	52	462	230	510	1,080	144	342	62	98	47	29
20	78	51	660	205	440	735	156	275	58	56	46	36
21	80	50	154	170	440	660	134	148	53	68	73	102
22	79	54	130	156	440	510	117	290	51	380	70	52
23	74	80	120	130	840	380	112	218	49	205	54	37
24	69	71	110	170	840	342	106	735	48	88	44	31
25	70	78	109	218	660	325	98	510	51	65	42	27
26	69	68	98	360	1,020	290	94	380	84	138	34	24
27	69	59	95	485	840	308	90	260	80	78	32	24
28	69	54	90	148	585	342	92	218	75	75	32	29
29	69	59	94	120	-------	360	97	205	150	79	32	31
30	67	45	94	110	-------	290	124	170	260	70	32	33
31	61	-------	90	120	-------	245	-------	160	-------	68	32	-------

Note.—Discharge Dec. 22-25, 27, 28, Dec. 31 to Jan. 1, Jan. 3-5, 7-10, 13, 14, 23 and 29-31 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Shenango River at Sharon.

Monthly discharge of Chartiers Creek at Carnegie, for the year ending September 30, 1925.
(Drainage area 260 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	1,020	61	158	0.608	0.70
November,	180	45	62.8	.242	.27
December,	660	46	193	.742	.86
January,	900	76	163	.627	.72
February,	1,540	205	797	3.07	3.20
March,	1,080	245	427	1.64	1.89
April,	275	90	154	.592	.66
May,	960	97	296	1.12	1.29
June,	260	48	91.4	.352	.39
July,	440	54	117	.450	.52
August,	510	32	101	.388	.45
September,	102	24	34.2	.132	.15
The Year,	1,540	24	212	.815	11.10

OHIO BASIN—STATION NO. 30

SHENANGO RIVER NEAR JAMESTOWN

Location.—At two-span steel highway bridge, known as Frye Bridge, about one and one-half miles downstream from Jamestown, Mercer County.

Drainage Area.—182 square miles.

Records Available.—December 2, 1919, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read by Hugh P. McClimans. Elevation of gage zero 955.00 feet, United States Geological Survey datum.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Right bank is low and overflow begins at a stage of 7 feet; left is high and not subject to overflow. Bed is composed of gravel and boulders. Control is at a riffle about 50 feet downstream from the gage; probably permanant.

Extremes of Discharge.—Maximum stage during the year, 8.60 feet observed at 8.30 a. m. February 11 (discharge, about 2,630 second-feet); minimum, 1.09 feet at 5 p. m. September 8 (discharge, 2.7 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve fairly well defined below 1,600 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results fair.

The following discharge measurement was made by R. J. Ferris: No. 34, August 4: Gage height, 1.20 feet; discharge, 5.55 second-feet.

Daily Mean Gage Height, in feet, of Shenango River near Jamestown for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.36	1.52	2.53	2.73	2.55	3.58	2.32	1.94	1.47	1.29	1.20	1.12
2	6.48	1.50	1.97	2.61	2.53	3.05	2.28	1.91	1.43	1.30	1.21	1.11
3	5.90	1.48	1.70	2.47	2.82	2.79	2.2-	1.9-	1.38	1.26	1.19	1.15
4	4.72	1.49	1.59	2.58	2.50	2.58	2.15	2.01	1.37	1.22	1.19	1.12
5	3.88	1.50	1.62	2.21	2.18	2.43	2.1-	2.15	1.36	1.2-	1.24	1.12
6	3.32	1.50	1.85	2.35	2.47	2.34	2.07	2.17	1.35	1.2-	1.30	1.12
7	3.04	1.49	1.92	2.34	2.56	2.60	1.95	2.12	1.33	1.34	1.30	1.12
8	2.68	1.48	2.03	2.36	4.44	3.58	1.93	2.06	1.31	1.32	1.31	1.12
9	2.52	1.49	2.40	2.37	6.95	3.75	1.87	1.99	1.30	1.27	-------	1.14
10	2.30	1.48	2.13	2.38	8.23	3.92	1.88	1.95	1.28	1.60	1.26	1.13
11	2.20	1.48	2.15	2.38	8.43	4.00	1.92	2.12	1.25	1.46	1.20	1.14
12	2.12	1.48	2.26	2.38	6.79	3.98	1.85	2.0-	1.23	1.35	1.22	1.18
13	2.01	1.50	2.61	2.38	5.84	4.22	1.85	1.94	1.21	1.34	1.24	1.37
14	1.94	1.54	2.69	2.38	5.30	4.52	1.87	1.90	1.23	1.29	1.21	1.48
15	1.86	1.53	2.64	2.36	4.82	4.56	2.24	1.91	1.20	1.25	1.22	1.62
16	1.81	1.56	2.52	2.37	5.48	4.85	1.94	1.84	1.22	1.39	1.33	1.84
17	1.74	1.58	3.77	2.40	4.50	4.05	1.89	2.25	1.23	1.42	1.30	1.90
18	1.69	1.56	4.40	2.42	4.02	3.68	1.85	2.21	1.19	1.36	1.24	1.93
19	1.62	1.54	5.88	2.43	4.05	4.30	1.85	2.00	1.18	1.32	1.20	2.09
20	1.60	1.52	5.95	2.54	3.31	4.22	1.82	1.91	1.18	1.30	1.20	2.13
21	1.54	1.59	4.32	2.50	3.15	4.30	1.79	1.89	1.17	1.29	1.26	2.25
22	1.54	1.70	4.26	2.49	3.73	3.65	1.77	1.82	1.21	1.29	1.20	2.29
23	1.52	1.74	3.85	2.49	5.75	3.21	1.93	1.75	1.25	1.3-	1.22	2.06
24	1.55	1.76	3.50	2.49	6.56	2.80	1.89	1.73	1.25	1.27	1.22	2.04
25	1.53	1.77	3.25	2.49	6.12	2.43	1.91	1.74	1.48	1.22	1.25	2.04
26	1.52	1.92	4.10	2.53	5.45	2.33	2.14	1.71	1.42	1.22	1.20	2.00
27	1.52	1.77	3.58	2.60	5.05	2.35	2.14	1.67	1.51	1.20	1.20	1.96
28	1.50	1.74	3.24	2.58	4.32	2.34	2.04	1.63	1.44	1.18	1.18	1.82
29	1.50	1.82	3.19	2.60	-------	2.30	1.93	1.60	1.38	1.19	1.15	1.60
30	1.48	2.15	3.20	2.62	-------	2.42	1.88	1.55	1.34	1.22	1.13	1.53
31	1.51	-------	2.72	2.63	-------	2.45	-------	1.51	-------	1.16	1.13	-------

Note.—Stage-discharge relation Nov. 29 to Dec. 3, Dec. 23 to Feb. 6 and Feb. 14-21 affected by ice. Gage height Aug. 9 not observed.

Daily discharge, in second-feet, of Shenango River near Jamestown, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	1,560	32	48	100	90	510	169	96	27	11	6.5	3.6
2	1,600	30	44	90	80	330	169	90	23	12	6.9	3.3
3	1,360	28	42	90	80	280	148	92	18	9.5	6.0	3.5
4	885	29	40	90	90	235	136	107	18	7.4	6.0	3.6
5	605	30	44	90	90	202	127	138	17	7.4	8.4	3.6
6	420	30	79	85	100	180	117	138	16	11	12	3.6
7	330	29	92	80	224	235	98	127	14	15	12	3.6
8	297	28	117	80	780	510	94	117	13	14	13	3.6
9	213	29	191	80	1,830	570	83	105	12	10	11	4.2
10	169	28	138	80	2,430	605	84	98	11	41	9.5	5.6
11	148	28	138	85	2,580	640	92	127	9.0	26	6.5	4.2
12	127	28	158	90	1,730	640	79	107	7.9	16	7.4	5.6
13	107	30	235	85	1,320	710	79	96	6.9	15	7.4	18
14	96	34	257	80	800	815	83	88	7.9	11	6.9	28
15	81	33	246	75	500	850	158	90	6.5	9.0	7.4	44
16	72	37	213	75	400	920	96	77	7.4	19	14	77
17	61	39	540	80	340	640	86	158	7.9	22	12	88
18	54	37	780	85	300	540	79	148	6.0	17	8.4	94
19	44	34	1,360	90	260	745	79	107	5.6	14	6.5	127
20	41	32	1,400	90	240	710	74	90	5.6	12	6.5	138
21	34	40	920	90	240	745	68	86	5.2	11	9.5	158
22	34	55	715	90	540	510	66	74	6.9	11	6.5	148
23	32	61	420	90	1,320	390	94	62	9.0	12	7.4	117
24	34	40	920	90	240	745	68	86	5.2	11	9.5	158
25	33	66	190	85	1,440	202	90	61	28	7.4	7.4	117
26	32	92	150	80	1,160	180	138	56	22	7.4	6.5	107
27	32	66	140	75	1,000	180	138	51	31	6.5	6.5	99
28	30	61	150	110	745	180	117	45	24	5.6	5.6	74
29	30	55	156	100	-------	169	94	41	18	6.0	4.6	41
30	28	55	140	100	-------	191	84	36	15	7.4	3.9	33
31	31	-------	130	90	-------	202	-------	31	-------	4.9	3.9	-------

Note.—Discharge estimated Nov. 29 to Dec. 3, Dec. 23 to Feb. 6 and Feb. 14-21, because of ice, from weather records, study of gage height graph and comparison with similar studies for Shenango River at Sharon and Oil Creek near Rouseville, and Aug. 9, because of no gage height record, by interpolation.

Monthly discharge of Shenango River near Jamestown, for the year ending September 30, 1925.

(Drainage area 182 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	1,600	28	277	1.52	1.75
November,	92	28	41.3	.227	.25
December,	1,400	40	310	1.70	1.96
January,	110	75	87.1	.479	.55
February,	2,530	80	796	4.37	4.55
March,	920	129	455	2.50	2.88
April,	169	66	104	.571	.64
May,	158	31	90.3	.496	.57
June,	31	5.2	13.6	.075	.08
July,	41	4.9	12.5	.069	.08
August,	14	3.9	7.85	.043	.05
September,	158	3.3	55.7	.306	.34
The Year,	2,530	3.3	184	1.01	13.70

OHIO BASIN—STATION NO. 31

SHENANGO RIVER AT SHARON

Location.—At single-span steel highway bridge, Chestnut Street, Sharon, Mercer County.

Drainage Area.—611 square miles.

Records Available.—August 1, 1909, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by H. H. Gerber. Elevation of gage zero 840.00 feet, United States Geological Survey datum.

Discharge Measurements.—Made from the Mill, Chestnut or State Street Bridges or by wading.

Channel and Control.—Banks become inundated at a stage of about 12 feet. Bed is composed of silt and gravel. Control is a water main, backed with gravel and boulders, about one-quarter of a mile downstream from the gage; probably permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 11.3 feet at 9 p. m. February 10 (discharge, 8,130 second-feet); minimum, 1.85 feet at 8 a. m. on September 7 and 9 (discharge, 13 second-feet).

Ice.—Water from this stream is used for industrial purposes and returned to the river at sufficiently high temperature to usually

prevent the formation of ice for a considerable distance downstream from the station.

Accuracy.—Stage-discharge relation permanent. Rating curve well defined below 2,000 second-feet; fairly well defined between 2,000 and 5,000 second-feet and well defined between 5,000 and 9,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for extremely low stages when they are fair.

Cooperation.—Station is maintained in cooperation with Carnegie Steel Company, Farrell, Pa.

The following discharge measurement was made by R. J. Ferris: No. 114, August 7: Gage height, 2.24 feet; discharge, 57.2 second-feet.

Daily Mean Gage Height, in feet, of Shenango River at Sharon for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	9.27	2.40	2.40	2.88	2.87	5.28	3.83	3.44	2.57	2.38	2.00	1.92
2	8.64	2.42	2.42	2.85	2.86	4.90	3.68	3.40	2.52	2.31	1.96	1.92
3	7.16	2.33	2.37	2.82	2.83	4.46	3.72	3.42	2.44	2.23	2.00	1.92
4	6.20	2.42	2.38	2.80	2.87	4.24	3.60	3.42	2.37	2.16	2.04	1.90
5	5.50	2.38	2.39	2.77	2.88	4.06	3.37	3.52	2.32	2.11	2.05	1.90
6	4.76	2.32	2.68	2.78	2.92	4.14	3.25	3.69	2.30	2.11	2.14	1.88
7	4.39	2.30	2.75	2.80	3.38	4.98	3.13	3.61	2.23	2.40	2.17	1.96
8	4.17	2.28	2.94	2.84	5.51	5.55	3.02	3.38	2.20	2.86	2.14	1.86
9	3.72	2.25	3.38	2.79	7.45	5.44	2.96	3.20	2.26	3.00	2.16	1.86
10	3.38	2.27	3.54	2.82	10.21	5.28	2.91	3.34	2.15	2.84	2.14	1.90
11	3.26	2.32	3.25	2.84	10.69	5.52	2.96	3.70	2.12	2.68	2.12	1.98
12	3.12	2.30	3.21	2.82	9.08	5.60	3.02	3.84	2.14	2.60	2.10	2.01
13	3.02	2.24	3.46	2.80	7.09	5.47	3.18	3.38	2.12	2.49	2.10	2.46
14	2.90	2.36	3.53	2.80	5.85	5.49	3.24	3.22	2.10	2.32	2.11	3.22
15	2.84	2.35	3.54	2.76	5.58	5.78	3.75	3.08	2.08	2.30	2.13	3.28
16	2.79	2.33	3.66	2.81	5.38	5.74	4.22	2.96	2.10	2.21	2.12	3.32
17	2.72	2.36	5.28	2.86	5.04	5.60	3.55	3.45	2.08	2.27	2.12	3.00
18	2.64	2.44	6.68	2.86	4.79	5.45	3.25	4.12	2.14	2.28	2.10	2.86
19	2.59	2.46	7.38	2.90	4.50	6.75	3.12	3.70	2.10	2.22	2.09	3.06
20	2.52	2.50	8.12	2.94	4.44	6.40	3.02	3.38	2.07	2.14	2.10	3.12
21	2.50	2.36	7.12	2.89	4.42	5.64	2.96	3.20	2.07	2.14	2.10	3.60
22	2.46	2.38	5.54	2.89	5.65	5.26	2.91	3.03	2.09	2.12	2.09	3.59
23	2.50	2.46	4.94	2.90	7.87	4.88	2.94	2.90	2.08	2.08	2.12	3.26
24	2.46	2.66	4.68	2.90	8.58	4.41	3.16	3.16	2.13	2.08	2.14	3.10
25	2.44	2.71	4.30	2.86	8.32	4.18	3.40	3.50	2.33	2.07	2.13	3.02
26	2.42	2.64	3.62	2.83	7.50	3.78	3.44	3.25	2.62	2.08	2.09	2.89
27	2.40	2.61	3.58	3.06	6.63	4.05	3.33	3.02	2.59	2.04	2.06	2.82
28	2.44	2.60	3.48	3.22	5.85	4.52	3.18	2.86	2.54	2.02	2.02	2.90
29	2.42	2.60	3.49	3.00	-------	4.30	3.07	2.73	2.49	1.99	1.98	2.80
30	2.40	2.48	3.36	2.86	-------	3.91	3.00	2.69	2.52	1.98	1.96	2.60
31	2.44	-------	3.00	2.92	-------	3.88	-------	2.64	-------	1.96	1.94	-------

Daily discharge, in second-feet, of Shenango River at Sharon, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,290	87	87	230	226	1,520	670	471	128	83	26	18
2	4,450	91	91	219	223	1,260	595	447	114	71	22	18
3	3,000	74	82	208	212	1,020	595	447	96	58	26	18
4	2,160	91	83	201	226	855	545	447	82	47	31	16
5	1,660	83	85	191	230	800	424	495	73	40	32	16
6	1,200	73	161	194	245	800	379	595	69	40	45	15
7	965	69	184	201	447	1,320	336	545	58	87	49	14
8	855	66	252	215	1,660	1,730	275	447	53	223	45	14
9	595	61	447	198	3,180	1,590	260	357	63	275	47	14
10	447	64	520	208	6,460	1,520	241	424	46	215	45	16
11	379	73	379	215	7,190	1,660	260	595	42	161	42	24
12	315	69	357	208	5,050	1,730	275	670	45	136	39	27
13	275	59	471	201	2,910	1,660	357	447	42	107	39	100
14	237	80	520	201	1,870	1,660	379	357	39	73	40	357
15	215	78	520	187	1,730	1,870	620	315	36	69	43	401
16	198	74	570	205	1,590	1,800	855	260	39	55	42	401
17	174	80	1,520	223	1,320	1,730	520	471	36	64	42	275
18	148	96	2,560	223	1,200	1,590	379	800	45	68	39	223
19	133	100	3,180	237	1,020	2,640	315	595	39	56	38	295
20	125	109	3,900	252	965	2,320	275	447	35	45	39	515
21	109	80	2,910	233	965	1,730	260	357	35	45	39	545
22	100	83	1,660	233	1,730	1,520	241	295	38	42	38	545
23	109	100	1,260	237	3,680	1,260	252	237	36	36	42	379
24	100	155	1,140	237	4,450	965	336	336	43	36	45	315
25	96	170	910	223	4,120	855	447	495	74	35	43	275
26	91	148	545	212	3,280	645	471	379	142	36	38	233
27	87	139	545	295	2,480	745	424	275	133	31	34	208
28	96	136	495	357	1,870	1,020	357	223	120	29	29	237
29	91	136	495	275	-------	910	295	177	107	25	24	201
30	87	105	447	223	-------	695	275	164	114	24	22	136
31	96	-------	275	245	-------	695	-------	148	-------	22	20	-------

Monthly discharge of Shenango River at Sharon, for the year ending September 30, 1925.

(Drainage area 611 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	5,290	87	770	1.26	1.45
November,	170	59	94.3	.154	.17
December,	3,900	82	860	1.41	1.63
January,	357	187	225	.368	.42
February,	7,190	212	2,160	3.54	3.69
March,	2,640	645	1,360	2.23	2.57
April,	855	241	397	.650	.73
May,	800	148	410	.671	.77
June,	142	35	67.4	.110	.12
July,	275	22	75.3	.123	.15
August,	49	20	36.9	.060	.07
September,	545	14	188	.308	.34
The Year,	7,190	14	545	.892	12.11

SHENANGO RIVER AT NEW CASTLE

Location.—At two-span steel highway bridge, West Washington Street, New Castle, Lawrence County.

Drainage Area.—797 square miles.

Records Available.—January 1, 1910, to September 30, 1925.

Gage.—Standard chain attached to upstream side of bridge; read by J. L. Mosely. Elevation of gage zero 787.00 feet, United States Geological Survey datum.

Discharge Measurements.—Made from upstream side of bridge or by wading.

Channel and Control.—Banks are high and not subject to overflow. Bed is composed of gravel and rock. Control is at a riffle, at the head of a low island, about 300 feet downstream from gage; practically permanent.

Extremes of Discharge.—Maximum stage during the year, estimated from Sharon record, 9.3 feet on February 10 (discharge, 10,200 second-feet); minimum, 0.58 foot at 5 p. m. September 8 (discharge, 20 second-feet).

Ice.—Stage-discharge relation seldom affected by ice.

Diversions.—Water supply for the City of New Castle is taken from the river about one and one-half miles upstream from the gage.

Accuracy.—Stage-discharge relation probably permanent. Rating curve fairly well defined. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for estimated periods, when they may be only fair.

The following discharge measurement was made by R. J. Ferris: No. 44, August 7: Gage height, 1.00 foot; discharge, 49.0 second-feet.

Daily Mean Gage Height, in feet, of Shenango River at New Castle, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6.77						2.61		1.46	1.49	0.97	0.74
2	6.76						2.51	2.35	1.44	1.36	.93	.65
3	5.77						2.45	2.20	1.36	1.31	.88	.86
4	4.68						2.39	2.21	1.27	1.17	.86	.82
5	3.78						2.20	2.21	1.26	1.16	.86	.76
6	3.16						2.11	2.28	1.22	1.16	1.14	.78
7	2.75						2.07	2.43	1.17	1.14	1.02	.75
8	2.62						1.97	2.41	1.10	1.29	1.10	.63
9	2.18					4.08	1.91	2.05	1.22	1.93	1.12	.70
10	1.98					3.88	1.82	2.10	1.15	2.13	1.16	.71
11	1.80					3.94	1.79	2.23		2.19	1.11	.76
12	1.76					4.10	2.05	2.49		2.16	.96	.79
13	1.59						1.99	2.31		1.75	1.01	1.00
14	1.47							2.05		1.44	1.08	
15	1.44							1.90		1.29	1.00	1.93
16	1.28					4.15		1.81	1.22	1.20	.98	1.71
17	1.31					4.12	2.42	2.00	1.12	1.21	1.05	1.60
18	1.24					3.93	2.15			1.23	1.07	1.64
19	1.22					5.07	2.00	2.28		1.19	1.05	1.65
20	1.19					5.32	1.99	2.16		1.16	1.02	1.82
21	1.16					4.39	1.83	2.03		1.12	.97	2.05
22	1.16					3.80	1.80	1.87		1.10	.94	2.55
23	1.08					3.58	1.84	1.81		1.06	.90	2.32
24	1.08					3.10		2.04		1.01	.88	1.96
25	.98					2.82		2.45	1.26	.99	1.05	1.86
26	.99					2.68		2.19		1.01	1.03	1.78
27	1.00					2.75		1.93	1.54	.97	.96	1.70
28	.92							1.80	1.60	.91	.90	1.74
29	1.00							1.66		1.01	.94	1.69
30	.98					2.70	1.85	1.58	1.56	.94	.92	1.61
31	.97					2.66		1.59		.95	.87	

Note.—Gage height unsatisfactory on days of no record.

Daily discharge, in second-feet, of Shenango River at New Castle, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,500						772	600	163	174	40	94
2	5,500						707	612	157	131	36	91
3	4,000						675	519	131	115	32	81
4	2,620						643	519	103	76	31	28
5	1,700					1,630	519	519	100	73	31	25
6	1,210						459	580	89	73	69	26
7	875						432	675	76	69	46	24
8	772						388	643	59	109	59	21
9	519					1,990	357	432	89	368	64	32
10	394					1,800	312	459	71	489	73	22
11	302					1,800	297	550	75	519	61	25
12	284					1,990	432	707	70	489	39	26
13	210						399	580	75	279	45	43
14	167					1,630	480	432	75	157	56	220
15	157	100	1,020	265	2,770		700	352	70	109	43	368
16	137					2,090	1,200	307	89	83	41	261
17	115					1,990	643	404	64	86	51	214
18	95					1,800	489	1,100	80	92	54	231
19	89					3,090	404	643	75	81	51	285
20	81					3,340	399	489	70	73	46	312
21	73					2,290	517	432	70	64	40	432
22	73					1,700	302	337	75	59	37	740
23	56					1,530	322	307	80	53	43	519
24	56					1,130	460	432	75	45	32	383
25	41					910	600	675	100	42	51	332
26	42					840	600	519	190	45	48	293
27	43					875	600	368	192	40	39	256
28	35					1,500	480	302	214	34	33	274
29	43					1,200	400	239	200	45	37	252
30	41					840	327	207	199	37	35	218
31	40					806		210		38	31	

Note.—Discharge does not include water diverted from the stream at the New Castle Water Works. Discharge Nov. 1 to Mar. 8, Mar. 13-15, 28, 29, Apr. 14-16, 24-29, May 1, 18, June 11-15, 18-24, 26, 29 and Sept. 14 estimated, because of unsatisfactory gage height record, from discharge of Shenango River at Sharon. Braced figures show mean discharge for the period included.

Monthly discharge of Shenango River at New Castle, for the year ending September 30, 1925. (Drainage area 797 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October,	5,500	35	815	1.03	1.19
November, (estimated),	181	63	100	.134	.15
December, (estimated),	4,640	98	1,020	1.29	1.49
January, (estimated),	420	220	265	.341	.39
February, (estimated),	8,990	265	2,770	3.49	3.63
March,	3,340	806	1,660	2.10	2.42
April,	1,200	297	504	.640	.71
May,	1,100	207	489	.621	.72
June,	214	59	106	.142	.16
July,	519	34	134	.177	.20
August,	73	31	44.6	.065	.07
September,	740	21	199	.258	.29
The Year,	8,990	21	663	.841	11.42

Note.—Discharge does not include the water diverted from the stream at the New Castle Water Works. Run-off includes the quantity of water diverted.

OHIO BASIN—STATION NO. 33

CONNOQUENESSING CREEK NEAR HAZEN

Location.—At single-span highway bridge, about one-half mile south of Baltimore & Ohio Railroad station at Hazen, Beaver County.

Drainage Area.—355 square miles.

Records Available.—June 3, 1915, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge, read by Ezra Hazen.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Right bank becomes inundated at a stage of about 10 feet; left is high and not subject to overflow. Bed is composed of gravel and boulders. Control is a deposit of gravel on ledge about 250 feet downstream from gage; permanent.

Extremes of Discharge.—Maximum stage during the year, 11.35 feet observed at 4 p. m. February 9 (discharge, about 8,300 second-feet); minimum, 1.18 feet at 4 p. m. September 7 and 7 a. m. September 8 (discharge, 12 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined to 5,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except during estimated periods, when they are fair.

Cooperation.—Station is maintained in cooperation with United States Engineer Office, Pittsburgh, Pa.

The following discharge measurement was made by R. J. Ferris: No. 26, September 28: Gage height, 1.30 feet; discharge, 15.6 second-feet.

Daily Mean Gage Height, in feet, of Connoquenessing Creek near Hazen for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	8.90	1.79	1.71	5.98	4.62	-------	2.88	2.06	1.91	-------	2.03	1.27
2	7.20	1.77	1.68	5.91	4.56	-------	2.84	2.13	1.87	-------	1.97	1.26
3	5.50	1.72	1.69	5.86	4.47	-------	2.86	2.20	1.88	1.85	1.91	1.26
4	4.20	1.70	1.74	5.79	4.42	-------	2.84	2.20	1.85	1.80	1.96	1.26
5	-------	1.70	1.88	5.70	4.54	-------	2.79	2.13	1.89	1.70	1.96	1.25
6	-------	1.67	2.05	5.71	4.68	-------	2.74	2.00	1.86	1.68	-------	1.22
7	2.55	1.68	2.14	5.71	5.00	-------	2.70	1.95	1.80	1.76	1.96	1.19
8	2.40	1.66	1.94	5.72	6.55	-------	2.45	1.94	1.74	1.79	2.04	1.18
9	-------	1.68	1.94	5.68	9.60	-------	2.32	1.96	1.69	2.10	1.89	1.20
10	1.98	1.70	2.22	5.78	6.63	-------	2.24	2.10	1.74	2.89	1.77	1.20
11	1.97	1.70	2.31	5.66	3.95	-------	2.14	-------	1.69	2.75	1.74	1.22
12	1.91	1.70	2.38	5.66	2.82	-------	2.04	-------	1.65	2.62	1.70	1.23
13	1.84	1.70	2.42	5.58	2.75	-------	1.99	-------	1.61	2.60	1.80	1.22
14	1.78	1.72	2.58	5.52	2.72	-------	2.00	-------	1.59	2.38	1.82	-------
15	1.76	1.70	2.82	5.66	2.64	-------	1.97	-------	1.62	2.10	1.72	-------
16	1.73	1.66	3.48	5.64	2.54	-------	1.96	2.06	1.58	2.04	1.66	-------
17	1.70	1.66	4.10	5.65	2.58	3.14	1.95	2.02	1.59	2.03	1.61	-------
18	1.70	1.69	5.00	5.48	2.70	-------	1.93	1.96	1.53	1.94	1.58	-------
19	1.71	1.67	5.47	5.26	2.98	-------	1.96	1.90	1.54	1.90	1.66	-------
20	1.72	1.69	6.05	4.92	3.18	-------	1.95	1.91	1.52	1.90	1.68	-------
21	1.70	1.70	6.45	4.86	-------	-------	1.98	1.85	1.50	2.00	1.58	-------
22	1.68	1.71	6.46	4.84	-------	-------	1.96	1.81	1.52	1.98	1.50	1.45
23	1.68	1.68	6.32	4.76	-------	2.88	1.96	1.83	1.56	1.94	1.44	1.44
24	1.70	1.66	6.50	4.68	-------	2.84	1.92	-------	1.64	1.94	1.42	1.40
25	1.68	1.68	6.46	4.60	-------	2.80	1.93	-------	-------	1.86	1.38	1.36
26	1.68	1.72	6.48	4.56	-------	-------	1.91	-------	-------	1.94	1.35	1.36
27	1.69	1.72	6.50	4.66	-------	-------	1.88	-------	1.95	2.04	1.34	1.32
28	1.70	1.68	6.48	4.61	-------	-------	1.92	-------	1.90	2.15	1.33	1.30
29	1.66	1.70	6.42	4.54	-------	-------	1.97	2.03	-------	2.25	1.30	1.24
30	1.66	1.68	6.22	4.53	-------	2.98	2.10	1.97	-------	2.18	1.28	1.28
31	1.72	-------	6.05	4.50	-------	2.96	-------	1.94	-------	2.13	1.30	-------

Note.—Gage height unsatisfactory on days of no record. Stage-discharge relation Dec. 18 to Feb. 8 affected by ice.

Daily discharge, in second-feet of Connoquenessing Creek near Hazen, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	5,810	109	86	150	130	800	670	210	150	70	108	17
2	4,280	103	78	150	150	750	637	236	136	280	173	17
3	2,750	89	81	150	150	650	637	272	139	122	150	17
4	1,660	83	95	150	150	650	637	272	129	112	169	17
5	1,000	83	139	150	170	650	605	240	143	83	169	16
6	650	76	206	150	280	750	575	185	132	78	340	14
7	455	78	245	150	600	1,000	545	166	112	160	169	13
8	370	74	162	150	2,000	1,000	398	162	95	109	202	12
9	260	78	162	150	6,500	950	330	169	81	227	143	13
10	177	83	282	150	3,740	1,000	291	227	95	670	103	13
11	173	83	340	150	1,500	1,000	245	850	81	575	95	14
12	150	83	360	150	605	1,000	202	950	72	485	83	15
13	126	83	381	150	575	1,000	181	700	62	485	112	14
14	106	89	485	130	545	1,000	185	480	58	360	122	42
15	100	83	637	130	515	1,200	173	320	65	227	83	200
16	92	74	1,100	130	455	950	169	210	56	202	74	280
17	82	74	1,580	150	485	840	166	219	58	198	62	180
18	83	81	2,000	150	545	1,100	158	169	47	162	56	150
19	86	76	900	150	735	2,000	169	146	49	146	74	50
20	89	81	480	150	875	2,200	166	150	46	146	78	60
21	83	83	380	150	1,100	1,500	177	129	42	185	56	50
22	78	86	320	150	1,500	950	169	115	46	177	42	35
23	78	78	280	130	2,200	670	169	122	53	162	34	34
24	83	74	220	130	2,400	637	154	1,000	69	126	31	28
25	78	78	200	130	2,200	605	158	650	260	132	26	24
26	78	89	180	130	1,500	1,200	150	360	260	162	24	24
27	81	89	180	150	1,000	2,000	139	320	166	202	23	21
28	83	78	180	130	900	1,700	154	280	146	236	22	19
29	74	83	170	130	-------	1,100	173	198	400	296	19	15
30	74	78	170	130	-------	735	227	173	650	208	18	18
31	89	-------	150	130	-------	702	-------	162	-------	240	19	-------

Note.—Discharge Oct. 5, 6, 9, Feb. 21 to Mar. 16, Mar. 18-22, 26-29, May 11-15, 24-28, June 25, 26, June 29 to July 2, Aug. 6 and Sept. 14-21 estimated, because of unsatisfactory gage height record from discharge of Slippery Rock Creek at Wurtemburg. Discharge Dec. 18 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Slippery Rock Creek at Wurtemburg, Shenango River at Sharon and Chartiers Creek at Carnegie.

Monthly discharge of Connoquenessing Creek near Hazen, for the year ending September 30, 1925.

(Drainage area 355 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	5,810	74	625	1.76	2.03
November	109	74	82.6	.233	.26
December	2,000	78	394	1.11	1.28
January	150	130	143	.403	.46
February	6,500	130	1,200	3.38	3.52
March	2,200	605	1,040	2.93	3.38
April	670	139	294	.828	.92
May	1,000	115	317	.893	1.03
June	650	42	150	.366	.41
July	700	78	247	.696	.80
August	340	18	96.0	.270	.31
September	280	12	47.4	.134	.15
The Year	6,500	12	381	1.07	14.55

OHIO BASIN—STATION NO. 34

SLIPPERY ROCK CREEK AT WURTEMBURG

Location.—At three-span steel highway bridge, Wurtemburg, Lawrence County, about one-half mile downstream from the former gaging station, and about one mile upstream from the mouth of creek.

Drainage Area.—404 square miles.

Records Available.—January 1, 1912, to September 30, 1922, for station at former location, and October 1, 1922, to September 30 1925, for station at present site.

Gage.—Standard chain attached to upstream side of bridge; read by Miss Grace Barton Wright. Elevation of gage zero 812.48 feet. United States Geological Survey datum.

Discharge Measurements.—Made from upstream side of bridge or by wading.

Channel and Control.—The right bank is high and not subject to overflow; the left becomes inundated at a stage of about 7.0 feet, and the stream overflows about 75 feet of the highway. Bed is composed of gravel and rocks; not subject to change. Low-water control is at a riffle, where the bed is composed of gravel and boulders, about 200 feet downstream from the gage; probably permanent. There is a decided change in the profile of the stream at a riffle, where the bed is composed of boulders and rock, about 1,000 feet downstream from the gage.

Extremes of Discharge.—Maximum stage during the year, estimated from hydrograph, 8.1 feet at 10 p. m. February 10 (discharge, about 7,960 second-feet); minimum, 1.90 feet at 4.30 p. m. September 8 (discharge, 11 second-feet).

Ice.—Stage-discharge relation usually affected by ice.

Accuracy.—Stage-discharge relation permanent except when affected by ice. Rating curve well defined below 1,000 second-feet. Gage read to hundredths twice daily. Daily discharge ascertained by applying daily mean gage height to rating table. Results good except for intermediate and high stages, when they are probably fair.

The following discharge measurement was made by R. J. Ferris: No. 45, September 28: Gage height, 2.20 feet; discharge 59.3 second-feet.

Daily Mean Gage Height, in feet, of Slippery Rock Creek at Wurtemburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	7.65	2.33	2.39	2.80	2.79	3.60	3.37	2.70	2.48	3.84	2.12	2.02
2	6.72	2.37	2.38	2.80	2.79	3.62	3.33	2.67	2.36	3.20	2.15	2.10
3	5.34	2.38	2.43	2.80	2.79	3.64	3.29	2.67	2.31	2.48	2.20	2.13
4	4.22	2.36	2.44	2.80	2.79	3.62	3.29	2.86	2.32	2.40	2.20	2.11
5	3.57	2.28	2.45	2.80	2.91	3.57	2.96	3.34	2.31	2.37	2.17	2.10
6	3.18	2.34	2.43	2.80	4.32	3.52	2.91	3.46	2.31	2.32	2.58	2.05
7	3.01	2.35	2.61	2.80	4.78	3.82	2.77	3.16	2.30	2.32	2.20	1.95
8	2.94	2.33	2.96	2.80	6.10	3.84	2.75	2.95	2.31	2.37	2.22	1.93
9	2.86	2.34	2.58	2.80	6.47	3.84	2.73	2.77	2.32	2.32	2.28	1.96
10	2.76	2.31	2.46	2.80	6.86	3.62	2.69	2.62	2.28	2.66	2.30	1.93
11	2.72	2.32	2.51	2.80	7.27	3.86	2.75	3.98	2.25	2.66	2.11	1.97
12	2.58	2.35	2.50	2.80	6.50	3.89	2.81	4.10	2.25	2.58	2.16	1.97
13	2.55	2.31	3.29	2.80	5.70	3.60	2.74	3.88	2.20	2.42	2.20	1.98
14	2.54	2.64	3.57	2.80	4.95	3.70	2.57	3.41	2.21	2.30	2.32	2.21
15	2.54	2.71	3.08	2.80	4.25	4.05	2.60	3.13	2.20	2.31	2.28	-------
16	2.54	2.53	2.88	2.80	4.04	3.66	2.67	2.98	2.39	2.32	2.28	-------
17	2.44	2.49	3.27	2.80	3.75	3.52	2.60	2.95	2.34	2.33	2.17	2.87
18	2.42	2.41	4.76	2.80	3.35	3.55	2.58	2.94	2.34	2.29	2.13	2.62
19	2.43	2.32	4.11	2.80	3.32	4.90	2.55	2.90	2.34	2.22	2.11	2.26
20	2.34	2.35	3.36	2.80	3.31	4.92	2.53	2.70	2.31	2.22	2.20	2.35
21	2.30	2.52	3.16	2.80	3.34	4.21	2.52	2.59	2.26	2.26	2.23	2.45
22	2.36	2.53	3.15	2.80	3.70	3.50	2.53	2.58	2.20	2.23	2.14	2.32
23	2.40	2.55	3.13	2.79	4.97	-------	2.72	2.66	2.22	2.21	2.10	2.21
24	2.30	2.47	3.07	2.79	5.10	3.34	2.65	4.22	2.24	2.15	2.12	2.19
25	2.36	2.46	3.05	2.79	4.45	3.22	2.63	3.72	2.92	2.16	2.07	2.21
26	2.35	2.47	2.80	2.79	-------	3.25	2.65	3.29	2.89	2.14	2.05	2.13
27	2.36	2.37	2.86	2.79	-------	4.72	2.55	-------	2.70	2.12	2.02	2.19
28	2.34	2.35	2.80	2.79	3.68	4.38	2.54	-------	2.50	2.23	2.01	2.20
29	2.36	2.30	2.80	2.79	-------	3.80	2.55	-------	3.97	2.19	2.02	2.24
30	2.34	2.33	2.80	2.79	-------	3.45	2.81	-------	3.75	2.17	2.03	2.19
31	2.32	-------	2.80	2.79	-------	3.38	-------	2.63	-------	2.14	2.02	-------

Note.—Stage-discharge relation Dec. 21 to Feb. 8 affected by ice. Gage height unsatisfactory on days of no record.

Daily discharge, in second-feet, of Slippery Rock Creek, at Wurtemburg, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	6,660	94	109	110	110	670	510	208	135	845	47	29
2	4,620	104	107	110	110	670	510	198	102	428	53	43
3	2,320	107	121	110	110	705	481	198	89	135	63	49
4	1,130	102	124	110	110	670	481	271	91	112	63	45
5	636	81	126	110	130	636	313	510	89	104	57	43
6	428	96	121	110	200	603	291	572	89	91	167	34
7	331	99	176	110	600	810	235	403	86	91	63	18
8	305	94	313	110	1,900	845	227	309	89	104	68	16
9	271	96	167	110	4,240	845	219	235	91	91	81	20
10	231	89	129	110	5,040	670	204	180	81	194	86	16
11	216	91	144	110	5,940	845	227	960	74	194	45	22
12	167	99	141	110	4,240	810	250	1,040	74	167	55	22
13	157	89	481	110	2,880	670	223	880	63	118	63	23
14	154	187	636	110	1,940	740	163	540	65	86	91	65
15	154	212	378	110	1,130	900	173	403	63	89	81	280
16	154	151	279	110	960	705	198	322	109	91	81	320
17	124	138	454	120	775	603	173	309	96	94	57	275
18	118	115	1,710	120	510	636	167	305	96	84	49	180
19	121	91	1,040	110	481	1,820	157	287	96	68	45	77
20	96	99	510	110	481	1,820	151	208	89	68	63	99
21	86	147	340	110	510	1,130	147	170	77	77	70	126
22	102	151	260	110	740	603	151	167	63	70	51	91
23	112	157	220	100	1,940	550	216	194	68	65	43	65
24	86	132	200	110	2,060	510	190	1,130	72	53	47	61
25	102	129	170	110	1,310	428	184	740	296	55	38	65
26	99	132	160	110	1,100	454	190	481	283	51	34	49
27	102	104	140	110	900	1,610	157	400	208	47	29	61
28	96	99	140	110	740	1,310	154	320	141	70	28	63
29	102	86	130	110	-------	810	157	280	454	61	29	72
30	96	94	130	110	-------	572	250	246	775	57	31	61
31	91	-------	130	110	-------	540	-------	184	-------	51	29	-------

Note.—Discharge Dec. 21 to Feb. 8 estimated, because of ice, from weather records, study of gage height graph and comparison with similar studies for Shenango River at Sharon, Chartiers Creek at Carnegie, Crooked Creek at Hileman's Farm and Oil Creek near Rouseville. Discharge Feb. 26, 27, Mar. 23, May 27-30 and Sept. 15 and 16 estimated, because of unsatisfactory gage height record, from weather records and study of gage height graph.

Monthly discharge of Slippery Rock Creek at Wurtemburg, for the year ending September 30, 1925.

(Drainage area 404 square miles)

Month	Discharge in Second-feet			Run-off	
	Maximum	Minimum	Mean	Second-feet per square mile	Depth in inches
October	6,660	86	628	1.55	1.79
November	212	81	116	.287	.32
December	1,710	107	300	.743	.86
January	120	100	110	.272	.31
February	5,940	110	1,470	3.64	3.79
March	1,820	428	815	2.02	2.33
April	510	147	238	.589	.66
May	1,130	167	408	1.01	1.16
June	775	63	140	.347	.39
July	845	47	126	.312	.36
August	167	28	58.3	.144	.17
September	320	16	79.7	.197	.22
The Year	6,660	16	368	.911	12.36

OHIO BASIN—STATION NO. 35

RACCOON CREEK AT MOFFATT'S MILL

Location.—At single-span steel highway bridge, about four miles west of Woodlawn, at Moffatt's Mill, Beaver County.

Drainage Area.—178 square miles.

Records Available.—May 27, 1915, to September 30, 1925.

Gage.—Standard chain attached to downstream side of bridge; read to hundredths twice daily by Henry Schissler.

Discharge Measurements.—Made from downstream side of bridge or by wading.

Channel and Control.—Both banks are high and not subject to overflow. Bed is composed of rocks and rock shingle; permanent. Control is at a riffle about 100 feet downstream from the gage. Stage-discharge relation may be affected by vegetable growth at control section during summer months.

Extremes of Stage.—Maximum gage height during the year, 5.35 feet observed at 6 p. m. February 8; minimum, 1.66 feet at 6 p. m. September 30.

Ice.—Stage-discharge relation usually affected by ice.

Cooperation.—Station is maintained in cooperation with United State Engineer Office, Pittsburgh, Pa.

The following discharge measurement was made by R. J. Ferris: No. 15, September 29: Gage height, 1.74 feet; discharge, 11.6 second-feet. Measurement made by wading 1,000 feet downstream from gage.

Daily Mean Gage Height, in feet, of Raccoon Creek at Moffatt's Mill, for the year ending September 30, 1925.

Day	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.
1	3.81	2.04	1.94	2.57	3.15	3.07	2.57	2.46	2.34	2.47	2.40	1.71
2	3.24	2.04	1.94	2.53	3.45	3.03	2.55	2.42	2.28	2.31	2.29	1.63
3	2.97	2.04	1.94	2.53	4.45	2.87	2.53	2.42	2.24	2.21	2.12	1.71
4	2.78	2.04	1.94	2.53	4.20	2.75	2.50	2.38	2.20	2.32	2.06	1.77
5	2.64	2.04	2.13	2.50	4.15	2.73	2.45	2.40	2.14	2.38	2.06	1.77
6	2.58	2.04	3.08	2.47	4.75	2.68	2.43	2.40	2.17	2.29	2.04	1.77
7	2.51	2.04	2.67	2.47	4.86	2.65	2.43	2.36	2.24	2.19	2.01	1.75
8	2.44	2.01	2.54	2.45	5.19	2.65	2.41	2.34	2.17	2.58	2.01	1.73
9	2.40	1.98	2.49	2.43	4.39	2.63	2.39	2.31	2.04	2.36	1.95	1.69
10	2.36	1.98	2.44	2.43	3.80	2.61	2.39	2.31	2.10	2.49	1.95	1.69
11	2.34	1.98	2.44	2.43	3.80	2.68	2.37	2.96	2.10	2.78	2.43	1.63
12	2.32	1.98	2.40	2.43	3.80	2.71	2.35	2.99	2.10	2.38	2.13	1.63
13	2.29	1.98	2.55	2.43	3.43	2.71	2.32	2.81	2.03	2.22	2.13	1.69
14	2.26	2.22	2.71	2.43	3.11	2.80	2.32	2.67	1.96	2.12	2.21	1.63
15	2.24	2.23	2.53	2.43	3.15	2.89	2.43	2.56	1.94	2.41	2.21	1.82
16	2.19	2.10	2.66	2.43	3.17	2.75	2.31	2.49	1.92	2.78	2.09	2..
17	2.19	2.01	3.16	2.86	3.20	2.75	2.28	2.40	1.92	2.40	2.01	2.
18	2.22	1.98	3.58	3.43	2.99	2.84	2.28	2.69	1.94	2.22	1.97	1.98
19	2.19	1.96	3.24	3.55	2.89	3.33	2.28	2.56	1.94	2.08	1.94	1.97
20	2.16	1.94	2.92	3.30	2.87	3.20	2.40	2.52	1.90	2.04	1.91	1.78
21	2.16	1.94	2.66	3.17	2.87	2.96	2.31	2.46	1.86	2.02	2.07	2.41
22	2.11	2.03	2.72	3.02	2.99	2.87	2.24	2.42	1.84	2.19	2.07	2.28
23	2.12	2.14	2.69	2.84	3.55	2.77	2.24	2.34	1.84	2.19	1.99	2.16
24	2.10	2.12	2.66	2.79	3.40	2.68	2.24	2.65	1.84	2.02	1.85	2.03
25	2.06	2.10	2.65	2.89	3.20	2.61	2.24	3.08	2.71	2.14	1.80	1.97
26	2.04	2.08	2.65	3.23	3.63	2.61	2.28	2.79	2.62	3.85	1.77	1.80
27	2.06	2.04	2.63	3.43	3.13	2.70	2.22	2.62	2.31	2.78	1.75	1.75
28	2.08	2.01	2.61	3.50	2.98	2.77	2.17	2.54	2.19	2.96	1.73	1.71
29	2.08	1.98	2.61	3.50	-------	2.75	2.14	2.46	2.72	2.57	1.71	1.70
30	2.08	1.98	2.61	3.37	-------	2.68	2.24	2.42	3.12	2.50	1.69	1.68
31	2.08	-------	2.59	3.27	-------	2.63	-------	2.38	-------	2.44	1.71	-------

Note.—Stage-discharge relation Dec. 22 to Feb. 9 affected by ice.

TABLE NO. IX

Miscellaneous discharge measurements made during the year ending September 30, 1925.

Stream	Location	Date	Gage height	Discharge	Drainage area Sq. Mi.	Run-off second-feet per square mile	Remarks
DELAWARE BASIN							
Lackawaxen River	Hawley, Wayne County	Oct. 1	7.97	4,780	290	16.5	Made at former gaging station.
Lackawaxen River	Hawley, Wayne County	May 15	2.11	359	290	1.24	Made at former gaging station.
Middle Creek	Near Hawley, Wayne County	Mar. 21		137	64	2.14	Made about three-quarters of a mile upstream from Wangaum.
SUSQUEHANNA BASIN							
Loyalsock Creek	Near Forksville, Sullivan County	Oct. 15		90.6	155	.58	Made about 150 feet upstream from Scar Run.
Loyalsock Creek	Near Lopez, Sullivan County	16		29.2	41.7	.70	Made about 1 mile downstream from Lopez.
Loyalsock Creek	Barbours, Lycoming County	July 21		95	376	.25	Record furnished by Penna. State College, measurements made by students at highway bridge.
Loyalsock Creek	Barbours, Lycoming County	24		453	376	1.20	
Loyalsock Creek	Barbours, Lycoming County	29		312	376	.83	
Loyalsock Creek	Barbours, Lycoming County	31		163	376	.43	
Loyalsock Creek	Barbours, Lycoming County	Aug. 3		154	376	.41	
Loyalsock Creek	Barbours, Lycoming County	7		134	376	.36	
OHIO BASIN							
East Branch Clarion River	Glen Hazel, Elk County	Oct. 22	Referenced	41.1	80.4	.51	Wading about 125 feet downstream from highway bridge.
East Branch Clarion River	Glen Hazel, Elk County	July 27	10.22	62.2	80.4	.77	Record furnished by Tannery Waste Disposal Committee of Pennsylvania.
East Branch Clarion River	Glen Hazel, Elk County	Aug. 12	10.52	25.7	80.4	.32	
East Branch Clarion River	Glen Hazel, Elk County	17	10.58	19.0	80.4	.24	
East Branch Clarion River	Glen Hazel, Elk County	24	10.68	12.1	80.4	.15	
East Branch Clarion River	Glen Hazel, Elk County	Sept. 11	10.87	7.76	80.4	.10	
East Branch Clarion River	Glen Hazel, Elk County	18	10.71	12.4	80.4	.15	
East Branch Clarion River	Johnsonburg, Elk County	Oct. 23	Refereneed	44.7	109	.41	Wading 1,000 feet upstream from highway bridge.
East Branch Clarion River	Johnsonburg, Elk County	Aug. 17		16.7	109	.15	Record furnished by Tannery Waste Disposal Committee of Pennsylvania.
East Branch Clarion River	Johnsonburg, Elk County	24		17.4	109	.16	
East Branch Clarion River	Johnsonburg, Elk County	Sept. 11	1.48	6.34	109	.06	
East Branch Clarion River	Johnsonburg, Elk County	18	1.41	10.6	109	.10	
East Branch Clarion River	Straight, Elk County	Oct. 22	Referenced	28.8	62.0	.46	Wading 150 feet downstream from highway bridge.
East Branch Clarion River	Straight, Elk County	July 10	7.64	34.2	62.0	.55	Record furnished by Tannery Waste Disposal Committee of Pennsylvania.
East Branch Clarion River	Straight, Elk County	Aug. 12	7.79	16.6	62.0	.27	
East Branch Clarion River	Straight, Elk County	17	7.81	16.8	62.0	.27	
East Branch Clarion River	Straight, Elk County	24	7.91	11.4	62.0	.18	
East Branch Clarion River	Straight, Elk County	Sept. 11	8.04	6.70	62.0	.11	
East Branch Clarion River	Straight, Elk County	18	7.50	43.8	62.0	.71	

Instanter Creek	Instanter, Elk County	Oct. 22	Refereneed	13.9	12.6	1.10	Wading 100 feet upstream from highway bridge.
Seven Mile Run	Instanter, Elk County	22	Refereneed	8.13	18.6	.44	Wading 50 feet upstream from upper foot bridge at tannery.
Seven Mile Run	Instanter, Elk County	22		6.41	18.6	.34	Wading 20 feet upstream from lower foot bridge at tannery.
Seven Mile Run	Instanter, Elk County	Dec. 9		42.8	18.6	2.30	Record furnished by Tannery Waste Disposal Committee of Pennsylvania.
Straight Creek	Straight, Elk County	Oct. 22	Refereneed	11.0	20.4	.54	Wading immediately downstream from Clermont Bridge, P. R. R.

TABLE NO: X

Summary of Run-off in Second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, for the year ending September 30, 1925.

Delaware Basin

Station	Drainage Area	Run-off in Second-feet per square mile													Run-off	Precipitation	Per Cent
	Square Miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to Precipitation
Lackawaxen River near West Hawley	212	1.44	0.604	0.887	0.580	3.86	2.42	1.33	1.14	0.505	1.16	1.07	1.24	1.34	18.13	37.7	48.1
Wallenpaupack Creek at Wilsonville	227		1.07	.846	.683	3.63	2.21	1.74	1.61	.793	.586	.568	.388				
Shohola Creek near Shohola	82	2.52	.827	1.70	.676	4.90	3.32	2.24	2.13	1.30	1.09	.830	.328	1.80	24.49	32.5	75.4
Delaware River at Port Jervis, N. Y.	3,070	2.36	.629	.984	.423	4.10	2.87	2.33	1.60	.642	1.15	.857	1.14	1.58	21.37	37.2	57.4
Bushkill Creek near Shoemakers	115	2.26	.991	1.86	.730	4.10	3.44	1.85	2.01	1.42	1.00	1.18	.517	1.77	23.99	35.4	67.8
McMichaels Creek near Stroudsburg	62	2.37	.890	1.50	.781	4.45	3.97	1.40	1.18	.835	.858	1.12	.781	1.68	22.49	43.0	52.3
Delaware River at Belvidere, N. J.	4,540	2.29	.619	1.03	.513	4.03	2.73	2.07	1.51	.665	.912	.841	.929	1.50	20.31	37.8	53.7
Lehigh River at Tannery	335	3.40	.934	1.06	.531	5.22	3.01	2.04	2.59	.899	.800	.878	.421	1.80	24.37	38.2	63.8
Lehigh River at Bethlehem a	1,240	2.45	.677	.976	.546	4.52	2.46	1.37	1.52	.823	.863	1.01	.539	1.46	19.84	39.0	50.9
Delaware River at Riegelsville b	6,190	2.36	.628	.987	.556	4.10	2.76	1.87	1.51	.751	.910	.913	.843	1.50	20.36	38.4	53.0
Delaware River at Trenton, N. J. c	6,800	2.34	.596	.951	.529	4.06	2.57	1.90	1.53	.746	.904	.954	.879	1.47	20.09	38.0	52.9
Little Schuylkill River at Tamaqua d	44	4.84	1.56	1.23	.543	7.84	2.89	1.86	2.43	1.32	2.06	1.64	.852	2.39	32.43	39.3	82.5
Schuylkill River at Reading e	900	2.78	.917	1.13	.571	7.19	2.30	1.17	1.41	.713	2.10	1.48	.548	1.82	24.69	37.8	65.3
Brandywine Creek at Chadds Ford	285	1.04	.804	.867	.526	4.04	1.62	1.28	1.05	.660	.533	.474	.358	1.08	14.73	32.6	45.2

a Run-off does not include the water diverted past the gage through the Lehigh Coal and Navigation Company Canal. Canal was closed Dec. 6 to Mar. 22.

b Run-off includes 230 second-feet, estimated quantity of water diverted past the gage through the Delaware Division of the Pennsylvania Canal, Oct. 1 to Dec. 5 and Mar. 24 to Sept. 30.

c Run-off includes the following diversions:—Pennsylvania Canal, 50 second-feet, Oct. 1 to Dec. 5 and Mar. 24 to Sept. 30; Trenton Power Canal 210 second-feet daily; Delaware and Raritan Canal feeder 140 second-feet Oct. 1 to Nov. 30 and Apr. 1 to Sept. 30.

d Run-off includes the quantity of water diverted from the stream by the Panther Valley Water Company.

e Run-off does not include the water diverted past the gage through the Schuylkill Navigation Company Canal. Canal was closed Nov. 1 to June 22.

TABLE NO. XI

Summary of Run-off in Second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, for the year ending September 30, 1925.

Susquehanna Basin

Station	Drainage Area	Run-off in Second-feet per square mile													Run-off	Precipitation	Per Cent
	Square Miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to Precipitation
North Branch Susquehanna River at Towanda	7,770	1.67	0.362	0.583	0.319	4.02	2.43	1.74	1.19	0.359	0.659	0.476	0.581	1.18	16.02	32.0	50.1
Towanda Creek near Monroeton	218	.876	.674	.633	.397	4.39	1.38	.752	1.14	.444	.315	.148	.156	.917	12.46	32.7	38.1
Tunkhannock Creek at Dixon	393	1.47	.468	.733	.321	3.99	1.96	1.32	.898	.333	.807	.883	.819	1.15	15.60	35.2	44.3
Lackawanna River at Moosic	265	1.82	.879	1.04	.811	3.85	2.22	1.96	1.85	1.16	1.32	1.11	1.09	1.58	21.42	32.9	65.1
North Branch Susquehanna River at Wilkes-Barre	9,960	1.69	.367	.551	.292	3.47	2.24	1.65	1.15	.368	.621	.459	.526	1.09	14.95	32.0	46.7
Wapwallopen Creek near Wapwallopen	46	1.44	.474	.511	.320	3.43	1.43	1.06	1.90	.430	.413	.741	.208	1.02	13.78	36.9	37.3
Nescopeck Creek near St. Johns	49	1.89	.708	.541	.345	3.43	1.47	1.58	3.39	.555	.839	1.03	.267	1.32	18.01	40.0	45.0
Fishing Creek at Bloomsburg	355	2.54	.583	.617	.445	5.83	2.90	1.35	2.04	.448	.901	1.64	.673	1.64	22.25	34.3	64.9
North Branch Susquehanna River at Danville	11,200	1.88	.357	.554	.321	3.82	2.09	1.54	1.17	.396	.612	.522	.496	1.12	15.34	32.3	47.5
West Branch Susquehanna River at Bower	320	.903	.270	1.36	.547	4.38	1.55	.631	1.70	.312	.916	.287	.139	1.07	14.45	31.1	46.5
Clearfield Creek at Dimeling	370	.800	.235	.811	.368	4.76	1.53	.662	1.71	.319	.627	.324	.097	.997	13.53	30.7	44.1
Driftwood Branch Sinnemahoning Creek at Sterling Run	270	.504	.125	1.26	.389	5.78	2.49	1.05	2.39	.615	.441	.233	.161	1.26	17.09	32.0	53.4
West Branch Susquehanna River at Renovo	2,990	.779	.194	1.07	.358	4.45	1.82	.823	2.04	.565	.492	.232	.103	1.06	14.34	30.2	47.5
Bald Eagle Creek at Milesburg	140	.485	.233	.307	.242	3.21	1.10	.405	1.47	.268	.230	.179	.132	.673	9.14	28.9	31.6
Bald Eagle Creek at Beech Creek Station	565	.823	.393	.481	.327	2.90	1.37	.811	1.82	.598	.506	.322	.248	.873	11.82	28.9	40.9
Pine Creek at Cedar Run	590	.690	.176	.553	.388	3.02	1.71	1.22	1.67	.380	.259	.175	.111	.849	11.52	27.5	41.9
Lycoming Creek near Trout Run	185	.908	.453	.643	.318	2.82	1.89	1.00	1.37	.422	.416	.335	.263	.892	12.12	35.6	34.1
West Branch Susquehanna River at Williamsport	5,670	.887	.217	.822	.369	3.97	1.78	.922	2.05	.554	.436	.295	.164	1.02	13.85	30.0	46.2
Loyalsock Creek at Loyalsock a	433	------	------	------	------	------	------	------	------	------	.815	.598	.470	-------	-------	35.4	---------
Frankstown Branch Juniata River at Williamsburg	295	.475	.323	.492	.400	3.39	1.45	.729	1.54	.441	.403	.285	.218	.827	11.25	29.6	38.0
Raystown Branch Juniata River at Saxton	790	.560	.249	.301	.276	3.09	1.11	.562	1.62	.359	.235	.193	.177	.713	9.65	36.0	26.8
Tuscarora Creek near Port Royal	205	.561	.220	.203	.170	3.09	1.20	.522	1.43	.258	.293	.149	.073	.663	9.04	27.0	33.5
Juniata River at Newport	3,380	.864	.296	.328	.314	2.99	1.26	.657	1.62	.405	.358	.258	.165	.778	10.57	30.2	35.0
Susquehanna River at Harrisburg	24,100	1.59	.325	.506	.318	3.56	1.74	1.15	1.39	.465	.510	.423	.315	1.01	13.69	31.3	43.7
Little Swatara Creek near Pine Grove	34	1.60	.406	.638	.574	6.97	1.81	.953	1.48	.509	1.75	1.05	.303	1.47	19.95	36.2	55.1
Swatara Creek at Harpers	334	2.13	.446	.686	.572	6.29	1.78	.967	1.47	.769	1.95	1.03	.269	1.50	20.39	35.7	57.1

a Station established July 27, 1925.

TABLE NO. XII

Summary of Run-off in Second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, for the year ending September 30, 1925.

Ohio Basin

Station	Drainage Area	Run-off in Second-feet per square mile												Run-off	Precipitation	Per Cent
	Square Miles	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Year	Depth in inches	Depth in inches	Run-off to Precipitation
Brokenstraw Creek at Youngsville	290	1.57	0.352	2.86	0.476	4.86	3.14	1.50	1.37	0.331	0.213	0.258	0.562	1.44	19.53	36.5	53.5
Oil Creek near Rouseville	330	1.03	.272	2.13	.445	3.88	2.46	1.14	1.20	.306	.287	.178	.230	1.12	15.13	35.9	42.1
French Creek at Kinneytown	207	1.30	.314	2.70	.483	4.57	3.26	1.25	.889	.116	.108	.150	.643	1.29	17.60	32.1	54.8
French Creek at Saegertown	386	1.67	.394	2.65	.442	4.54	3.28	1.51	1.12	.256	.205	.261	.643	1.39	18.96	32.5	58.3
Cussewago Creek near Meadville	88	1.40	.214	2.47	.433	4.48	3.19	.832	.628	.053	.048	.188	.385	1.17	15.96	30.3	52.7
French Creek at Carlton a	1,000	1.83	.236	2.34	.446	4.33	2.98										
Allegheny River at Franklin	6,010	1.57	.278	1.98	.413	4.23	2.93	1.58	1.45	.356	.293	.368	.374	1.30	17.67	33.5	52.7
East Branch Clarion River at Instanter b	39			1.73	.395	3.62	2.32	1.14	1.75	.754	.503	.192	.141	1.14	15.39	30.6	50.9
Clarion River near Piney	980	1.07	.194	1.49	.527	4.01	2.82	.929	1.97	.613	.570	.182	.082	.961	13.04	27.6	47.2
Red Bank Creek at Saint Charles	540	.970	.296	1.27	.437	3.78	1.46	.680	1.83	.457	.374	.149	.096	1.22	16.59	28.6	58.0
Mahoning Creek near Dayton	322	.780	.199	1.31	.466	3.59	2.00	.848	2.57	.425	.488	.218	.089	1.24	16.92	32.2	52.5
Allegheny River at Kittanning	9,010	1.58	.230	1.80	.429	4.23	2.87	1.19	1.56	.317	.274	.320	.347	1.00	13.63	30.5	44.7
Crooked Creek at Hileman's Farm	279	.967	.070	1.37	.362	4.66	1.83	.530	1.78	.114	.548	.092	.023	1.19	16.19	36.4	44.5
Stony Creek at Johnstown c	468	.857	.481	1.11	.675	3.29	1.91	1.56	2.80	.690	.705	.400	.259	.972	13.16	33.5	39.3
Blacklick Creek at Blacklick	386	.578	.210	1.17	.438	3.13	1.73	.915	2.18	.306	.611	.390	.148	1.11	15.04	34.9	43.1
Kiskiminitas River at Avonmore	1,720	.855	.309	1.07	.454	3.46	1.99	1.10	2.24	.506	.756	.398	.244	.923	12.53	37.6	33.3
Casselman River at Markleton	365	.477	.177	.754	.304	3.01	1.90	.933	2.12	.460	.529	.408	.095	1.66	23.51	39.1	57.6
Laurel Hill Creek at Ursina	122	.984	.258	1.86	.467	4.70	3.39	1.50	3.85	.630	1.51	.724	.172	.924	12.61	35.8	35.2
Youghiogheny River at Connellsville	1,320	.529	.198	.693	.352	3.14	1.80	1.00	2.35	.382	.632	.385	.128	.893	12.09	34.9	34.6
Youghiogheny River at Sutersville	1,680	.505	.212	.714	.363	3.07	1.69	1.02	1.91	.348	.527	.358	.113	.713	9.67	27.6	35.0
Turtle Creek near Trafford	55	.585	.236	.656	.602	2.65	1.50	.545	1.11	.325	.476	.400	.143	.815	11.10	29.5	37.6
Chartiers Creek at Carnegie	200	.608	.242	.743	.627	3.07	1.64	.592	1.12	.352	.450	.388	.132	1.01	13.70	29.6	46.3
Shenango River near Jamestown	182	1.52	.297	1.70	.479	4.37	2.50	.571	.496	.075	.069	.043	.306	.892	12.11	29.7	40.8
Shenango River at Sharon	611	1.23	.154	1.41	.368	3.54	2.23	.656	.671	.110	.123	.060	.308	.941	11.42	29.2	39.1
Shenango River at New Castle d	797	1.03	.134	1.29	.341	3.49	2.10	.640	.621	.142	.177	.065	.258	1.07	14.55	28.8	50.5
Connoquenessing Creek near Hazen	355	1.76	.233	1.11	.403	3.38	2.02	.828	.893	.366	.686	.270	.134				
Slippery Rock Creek at Wurtemburg	404	1.55	.287	.743	.372	3.64	2.62	.589	1.01	.347	.312	.144	.197	.911	12.36	28.6	43.2

a Station discontinued Mar. 31, 1925.
b Station established Dec. 10, 1924.
c Run-off includes the quantity of water diverted from the Quemahoning Reservoir.
d Run-off includes the quantity of water diverted from the stream at the New Castle Water Works.

INDEX

STREAM FLOW RECORDS

	Page
Accuracy of Field Data and Computed Records	25
Allentown—Little Lehigh Creek at	49
Allegheny River at Franklin	158
Allegheny River at Freeport	181
Allegheny River at Kittanning	169
Allegheny River near Larabee	142
Avonmore—Kiskiminitas River at	178
Bald Eagle Creek at Beech Creek Station	106
Bald Eagle Creek at Milesburg	103
Beech Creek Station—Bald Eagle Creek at	106
Belvidere, N. J.—Delaware River at	45
Bethlehem—Lehigh River at	51
Binghamton, N. Y.—North Branch Susquehanna River at	70
Blacklick—Blacklick Creek at	176
Blacklick Creek at Blacklick	176
Bloomsburg—Fishing Creek at	89
Bower—West Branch Susquehanna River at	93
Brandywine Creek at Chadds Ford	65
Brokenstraw Creek at Youngsville	143
Brownsville, South—Monogahela River at	183
Bushkill Creek near Shoemakers	40
Carlton—French Creek at	156
Carnegie—Chartiers Creek at	199
Casselman River at Markleton	186
Cedar Run—Pine Creek at	108
Chadds Ford—Brandywine Creek at	65
Chartiers Creek at Carnegie	199
Chemung River at Corning, N. Y.	71
Clarion River near Piney	163
Clarion River, East Branch, at Instanter	161
Clearfield Creek at Dimeling	95
Codorus Creek, South Branch, near York	138
Computed Records, Field Data and, Accuracy of	25
Connellsville—Youghiogheny River at	191
Connoquenessing Creek near Hazen	208
Convenient Equivalents	23
Corning, N. Y.—Chemung River at	71
Crooked Creek at Hileman's Farm	171
Cussewago Creek near Meadville	154
Danville—North Branch Susquehanna River at	91
Data Explanation of	24
Dayton—Mahoning Creek near	166
Definition of Terms	22
Delaware Basin, Gaging Stations in	26
Delaware Basin, Summary of Run-off in second-feet per square mile. Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, for the year ending September 30, 1925	216

	Page
Delaware River at Belvidere, N. J.	45
Delaware River at Port Jervis, N. Y.	37
Delaware River at Riegelsville	53
Delaware River at Trenton, N. J.	55
Dimeling—Clearfield Creek at	95
Discharge Measurements, Miscellaneous	214
Dixon—Tunkhannock Creek at	77
Driftwood Branch Sinnemahoning Creek at Sterling Run	97
East Branch Clarion River at Instanter	161
Equivalents, Convenient	23
Explanation of Data	24
Field Data and Computed Records, Accuracy of	25
Fishing Creek at Bloomsburg	89
Franklin—Allegheny River at	158
Frankstown Branch Juniata River at Williamsburg	120
Freeport—Allegheny River at	181
French Creek at Carlton	156
French Creek at Kimmeytown	150
French Creek at Saegertown	152
Friendsville, Md.—Youghiogheny River at	185
Gaging Stations for the year ending September 30, 1925, Map showing location of	28
Gaging Stations in Delaware Basin	26
Gaging Stations in Ohio Basin	27
Gaging Stations in Susquehanna Basin	27
Graters Ford—Perkiomen Creek at	63
Harpers—Swatara Creek at	136
Harrisburg—Susquehanna River at	131
Hazen—Connoquenessing Creek near	208
Hileman's Farm—Crooked Creek at	171
Instanter—East Branch Clarion River at	161
Jamestown—Shenango River near	201
Johnstown—Stony Creek at	173
Juniata River at Newport	128
Juniata River, Frankstown Branch, at Williamsburg	120
Juniata River, Little, at Tyrone	122
Juniata River, Raystown Branch, at Saxton	124
Kimmeytown—French Creek at	150
Kiskiminitas River at Avonmore	178
Kiskiminitas River at Vandergrift	180
Kittanning—Allegheny River at	169
Lackawanna River at Moosic	79
Lackawaxen River near West Hawley	30
Larabee—Allegheny River near	142
Laurel Hill Creek at Ursina	189
Lehigh Creek, Little, at Allentown	49
Lehigh River at Bethlehem	51
Lehigh River at Tannery	47
Little Juniata River at Tyrone	122
Little Lehigh Creek at Allentown	49
Little Schuylkill River at Tamaqua	58
Little Swatara Creek near Pine Grove	133
Lock Haven—West Branch Susquehanna River at	102
Loyalsock Creek at Loyalsock	116

	Page
Loyalsock—Loyalsock Creek at	116
Lycoming Creek near Trout Run	111
McMichaels Creek near Stroudsburg	43
Mahoning Creek near Dayton	166
Map showing location of Gaging Stations for the year ending September 30, 1925	28
Markleton—Casselman River at	186
Meadville—Cussewago Creek near	154
Measurements, Miscellaneous Discharge	214
Milesburg—Bald Eagle Creek at	103
Miscellaneous Discharge Measurements	214
Moffatt's Mill—Raccoon Creek at	213
Monongahela River at South Brownsville	183
Monroeton—Towanda Creek near	74
Moosic—Lackawanna River at	79
Nebraska—Tionesta Creek at	146
Nescopeck Creek near St. Johns	86
New Castle—Shenango River at	206
Newport—Juniata River at	128
North Branch Susquehanna River at Binghamton, N. Y.	70
North Branch Susquehanna River at Danville	91
North Branch Susquehanna River at Towanda	72
North Branch Susquehanna River at Wilkes-Barre	81
Ohio Basin, Gaging Station in	27
Ohio Basin, Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, for the year ending September 30, 1925	218
Oil Creek near Rouseville	147
Per Cent Run-off to Precipitation, Run-off in second-feet per square mile, Run-off depth in inches and Precipitation—Summary of, for the year ending September 30, 1925, Delaware Basin	216
Per Cent Run-off to Precipitation, Run-off in second-feet per square mile, Run-off depth in inches and Precipitation—Summary of, for the year ending September 30, 1925, Ohio Basin	218
Per Cent Run-off to Precipitation, Run-off in second-feet per square mile, Run-off depth in inches and Precipitation—Summary of, for the year ending September 30, 1925, Susquehanna Basin	217
Perkiomen Creek at Graters Ford	63
Pine Creek at Cedar Run	108
Pine Grove—Little Swatara Creek near	133
Piney—Clarion River near	163
Pollock's Mill—South Fork Ten Mile Creek at	182
Port Jervis, N. Y.—Delaware River at	37
Port Royal—Tuscarora Creek near	126
Precipitation, Per Cent Run-off to Precipitation, Run-off in second-feet per square mile and Run-off depth in inches—Summary of, for the year ending September 30, 1925, Delaware Basin	216
Precipitation, Per Cent Run-off to Precipitation, Run-off in second-feet per square mile and Run-off depth in inches—Summary of, for the year ending September 30, 1925, Ohio Basin	218
Precipitation, Per Cent Run-off to Precipitation, Run-off in second-feet per square mile and Run-off depth in inches—Summary of, for the year ending September 30, 1925, Susquehanna Basin	217

	Page
Raccoon Creek at Moffatt's Mill	213
Raystown Branch Juniata River at Saxton	124
Reading—Schuylkill River at	60
Red Bank Creek at Saint Charles	164
Renovo—West Branch Susquehanna River at	100
Riegelsville—Delaware River at	53
Rouseville—Oil Creek near	147
Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation—Summary of, for the year ending September 30, 1925, Delaware Basin	216
Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation—Summary of, for the year ending September 30, 1925, Ohio Basin	218
Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation—Summary of, for the year ending September 30, 1925, Susquehanna Basin	217
Saegertown—French Creek at	152
Saint Charles—Red Bank Creek at	164
Saxton—Raystown Branch Juniata River at	124
Schuylkill River at Reading	60
Schuylkill River, Little, at Tamaqua	58
Sharon—Shenango River at	203
Shenango River at New Castle	206
Shenango River at Sharon	203
Shenango River near Jamestown	201
Shoemakers—Bushkill Creek near	40
Shohola Creek near Shohola	35
Shohola—Shohola Creek near	35
Sinnemahoning Creek, Driftwood Branch, at Sterling Run	97
Slippery Rock Creek at Wurtemberg	210
South Branch Codorus Creek near York	138
South Brownsville—Monongahela River at	183
South Fork Ten Mile Creek at Pollock's Mill	182
Sterling Run—Driftwood Branch Sinnemahoning Creek at	97
St. Johns—Nescopeck Creek near	86
Stony Creek at Johnstown	173
Stroudsburg—McMichaels Creek near	43
Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, for the year ending September 30, 1925, Delaware Basin	216
Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, for the year ending September 30, 1925, Ohio Basin	218
Summary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, for the year ending September 30, 1925, Susquehanna Basin	217
Sunbury—Susquehanna River at	118
Susquehanna Basin, Gaging Stations in	27
Susquehanna Basin, Summmary of Run-off in second-feet per square mile, Run-off depth in inches, Precipitation and Per Cent Run-off to Precipitation, for the year ending September 30, 1925	217
Susquehanna River at Harrisburg	131
Susquehanna River at Sunbury	118

	Page
Susquehana River, North Branch, at Binghamton, N. Y.	70
Susquehanna River, North Branch, at Danville	91
Susquehanna River, North Branch, at Towanda	72
Susquehanna River, North Branch, at Wilkes-Barre	81
Susquehanna River, West Branch, at Bower	93
Susquehanna River, West Branch, at Lock Haven	102
Susquehanna River, West Branch, at Renovo	100
Susquehanna River, West Branch, at Williamsport	113
Sutersville,—Youghiogheny River at	194
Swatara Creek at Harpers	136
Swatara Creek, Little, near Pine Grove	133
Tamaqua—Little Schuylkill River at	58
Tannery—Lehigh River at	47
Ten Mile Creek, South Fork, at Pollock's Mill	182
Terms, Definition of	22
Tionesta Creek at Nebraska	146
Towanda—North Branch Susquehanna River at	72
Towanda Creek near Monroeton	74
Trafford—Turtle Creek near	196
Trenton, N. J.—Delaware River at	55
Trout Run—Lycoming Creek near	111
Tunkhannock Creek at Dixon	77
Turtle Creek near Trafford	196
Tuscarora Creek near Port Royal	126
Tyrone—Little Juniata River at	122
Ursina—Laurel Hill Creek at	189
Vandergrift—Kiskiminitas River at	180
Wallenpaupack Creek at Wilsonville	32
Wapwallopen Creek near Wapwallopen	84
Wapwallopen—Wapwallopen Creek near	84
West Branch Susquehanna River at Bower	93
West Branch Susquehanna River at Lock Haven	102
West Branch Susquehanna River at Renovo	100
West Branch Susquehanna River at Williamsport	113
West Hawley—Lackawaxen River near	30
Wilkes-Barre—North Branch Susquehanna River at	81
Williamsburg—Frankstown Branch Juniata River at	120
Williamsport—West Branch Susquehanna River at	113
Wilsonville—Wallenpaupack Creek at	32
Wurtemburg—Slippery Rock Creek at	210
York—South Branch Codorus Creek near	138
Youghiogheny River at Connellsville	191
Youghiogheny River at Friendsville, Md.	185
Youghiogheny River at Sutersville	194
Youngsville—Brokenstraw Creek at	143

END OF YEAR